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Table of Content: Volume 10 Number 4 October 2018

ARTICLE

**Cytokinin levels and expression profiles of cytokinin
metabolic genes in late stage maize kernels**

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Mary Fernandes and Chuck R. Dietrich

Full Length Research Paper

Cytokinin levels and expression profiles of cytokinin metabolic genes in late stage maize kernels

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Cytokinins (CK) are key determinants of seed size and their level can impact crop yield. The biological activities and chemistry of cytokinins are well defined but less is known about their molecular mode of action during maize kernel development, especially in late stage kernels. To understand the regulation of cytokinin levels at late stage kernel development, we examined the levels of active and inactive cytokinins in embryo and endosperm across kernel development. Active trans-zeatin is high during early stage of kernel growth, but decreases during later stages. We also undertook a genome-wide survey of cytokinin metabolic genes involved in biosynthesis, metabolism, conversion, transport, and signaling and examined their expression profiles during kernel development. Several major genes were identified which may contribute to changes in cytokinin levels during the late stage. Our systematic analysis of cytokinin pathways genes and metabolites provides an overall insight into the regulation of CK level across maize kernel development. Our data on late stage kernel add to the existing knowledge of CK biology in maize and could facilitate the modulation of CK levels using biotechnology.

Key words: Maize, cytokinin, kernel development, metabolism, gene regulation.

INTRODUCTION

Cytokinin plays an important role in coordinating the timing of development and overall kernel growth (Morris et al., 1997; Schäfer et al., 2015). One of the richest sources of CKs in many plants species is the developing seed where they control seed development through regulation of seed sink potential (Jameson and Song, 2015). Cytokinins are highly required during early endosperm development (5 to 10 days after pollination (DAP) in maize (Brugière et al., 2008) and the level of cytokinins declines as the seed matures. Although the role of cytokinins in the late stages of kernel growth is

less understood, it is known that during senescence the levels of cytokinins in kernels decrease. Because cytokinins are linked to cell wall invertase and sink activity (Ehned and Roitsch, 1997), increasing cytokinin level using transgenes could delay senescence and lead to higher yield or better abiotic stress tolerance depending on whether the plant perceives itself to be in a source or sink limiting condition (Jameson and Song, 2015). However, decreasing cytokinin levels in the late stages of kernel development impacts its interaction with ABA and may prevent precocious germination (Miransari

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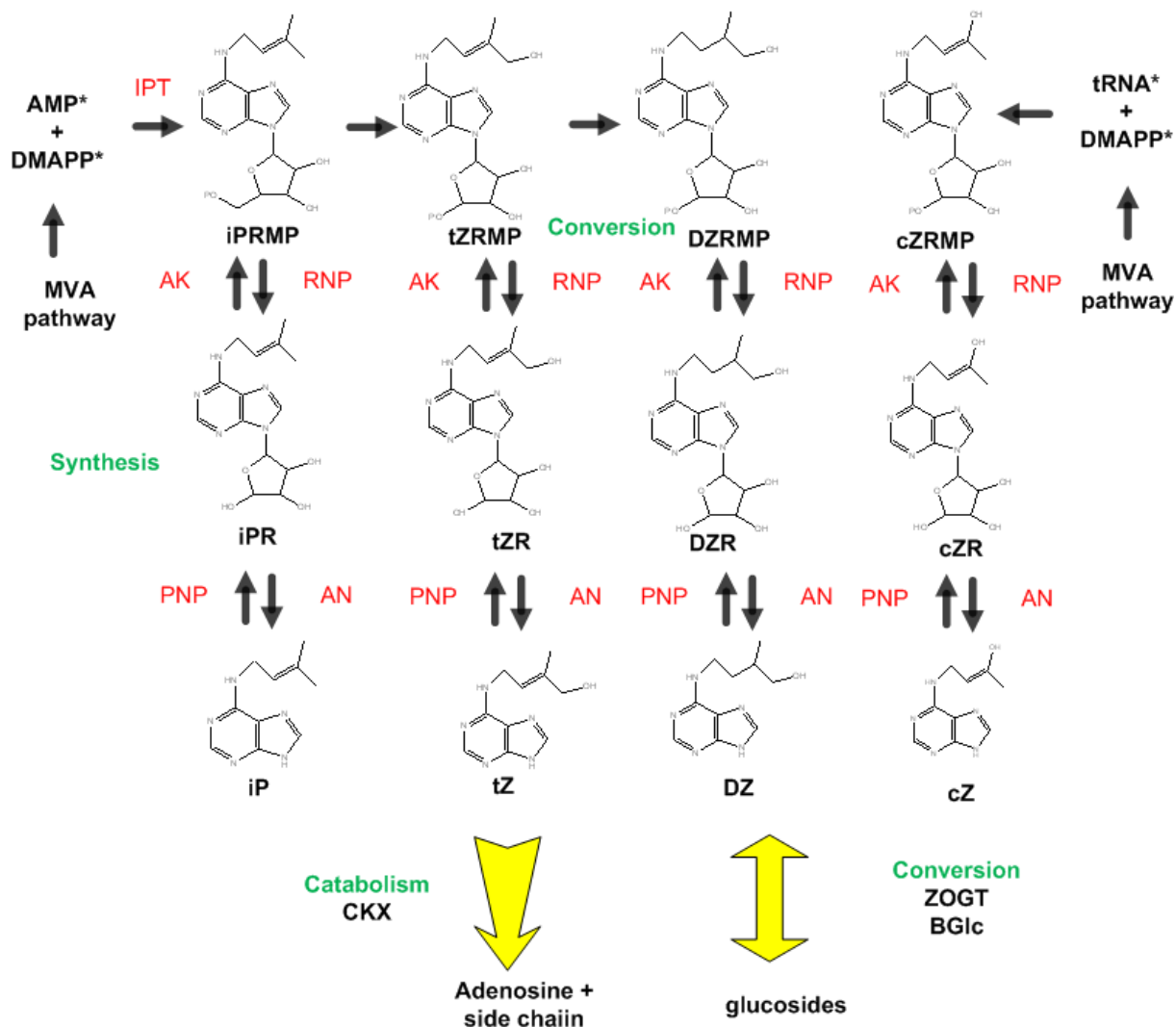


Figure 1. The key enzymes and metabolites of cytokinin metabolism. AMP, adenosine monophosphate; DMAPP, dimethylallyl diphosphate; MVA, mevalonate; IPRMP, isopentenyl riboside monophosphate; TZRMP, trans-zeatin riboside monophosphate; DZRMP, D-zeatin riboside monophosphate; CZRMP, cis-zeatin riboside monophosphate; IPR, isopentenyl riboside; TZR, trans-zeatin riboside; DZR, D-zeatin riboside; CZR, cis-zeatin riboside; DZ, D-zeatin; CZ, cis-zeatin; AK, adenosine kinase; RNP, ribonucleotide phosphatase; PNP, purine nucleoside phosphorylase; AN, adenosine nucleosidase; CKX, cytokinin oxidase; ZOGT, zeatin-O-glucosyltransferase; β Glc, β -glucosidase. The key enzymes and metabolites of cytokinin metabolism. The active forms of cytokinin are on the third row (iP, tZ, DZ and cZ). The precursors iPR, tZR, DZR, and cZR are in active as are the N and O glucosides implied by the double yellow arrow on the bottom right of the figure.

et al., 2014), which is an unfavorable agricultural phenotype. Therefore, it is critical to understand regulation of cytokinin during the later stage of kernel development and underlying molecular mechanisms.

The metabolic pathways involved in synthesizing and conversion of cytokinins are described in Figure 1. Zeatin (Z) and zeatin riboside (ZR) are the principal cytokinins present during the early phases of kernel development. Zeatin reaches to a maximum at 8 to 12 DAP; then declines to near incipient levels between 16 and 20 DAP (Cheikh and Jones, 1994; Dietrich et al., 1995). Cytokinin activity is higher in the endosperm than the embryo

suggesting that endosperm may supply cytokinins until the embryo can synthesize its own. Cytokinins are regulated at many levels, including *de novo* synthesis, conjugation, transport, catabolism, perception and the conversion between active and inactive forms (Kieber et al., 2018).

The level of cytokinin is determined by genes involved in these metabolite pathways and the spatial-temporal regulation of cytokinin pathway genes is critical to control local cytokinin levels (Hirose et al., 2007; Ma et al., 2008). CK biosynthesis, degradation and reversible/irreversible inactivation are key regulators of CK level.

Several maize CK dehydrogenase (CKX) genes are expressed in the endosperm and embryo (Šmehilová et al., 2009; Vyroubalova et al., 2009). Lower cytokinin levels are associated with increased cytokinin degradation; higher levels of cytokinin are associated with homeostatic mechanisms (Jones et al., 1992; Zalabák et al., 2014; Jameson and Song, 2015).

Although zeatin is one of the principal accumulating cytokinins in developing kernels, it can rapidly undergo conversion to nucleosides and nucleotides (Figure 1). Conversion between active and inactive cytokinin can establish a cytokinin gradient across the kernel and reduce or increase biological activity (Jameson and Song, 2015).

CK-O-glucosides are generally assumed to be storage products. Cytokinin action is further regulated by cytokinin transport systems. The purine permease (PUP) family and the equilibrative nucleoside transporter (ENT) family have been proposed as candidates for cytokinin transporters in *Arabidopsis* and rice (Kang et al., 2017; Burkle et al., 2003; Hirose et al., 2005).

Specific steps in cytokinin biosynthesis, metabolism and perception may be targeted for genetic modification to enhance crop performance when spatial-temporal cytokinin regulation is better understood. Over the past decade, numerous cytokinin metabolism and perception genes have been identified. However, most transcriptome profiling studies have focused on gene profiles in the early through middle developmental stage endosperm in maize (Li et al., 2014; Sekhon et al., 2011, 2013; Shen et al., 2012), no late stage (40DAP) included. In this study, we systematically studied expression profiles of cytokinin pathway genes and CK levels from early to late stage of kernel to identify genes involved in maize CK biosynthesis, signaling, conversion, degradation, activation, and transport pathways. We also dissected kernel into the endosperm and embryo to study tissue specific gene expression, and measured cytokinin CK levels during middle and late kernel stages. Finally, we discuss how the spatial regulation of cytokinin metabolism genes impact CKs in both embryo and endosperm.

MATERIALS AND METHODS

Bioinformatics analysis

Arabidopsis cytokinin pathway proteins were used as seed sequences for BLAST to identify maize CK pathway proteins in maize (B73), with a cutoff of $1e-05$. The identified public sequences were cross mapped to maize GBD and previous literature.

Plant material

Plants were hand-pollinated and kernels were harvested from 0 to 40 DAP. For each time point, three replicates were sampled. All samples were collected between 10 am and 12 pm. Embryo and endosperm were dissected at each time point.

Expression of profiling

Affymetrix microarray was conducted for expression analysis across several developmental stages (Yang, et al, 2011). The expression probe design has been uploaded to NCBI. <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GPL14616>.

CK extraction

Plant tissues were sampled and immediately frozen by immersing in liquid nitrogen and stored in a -80°C freezer until processing. Samples were milled frozen and 250 to 350 mg of fresh frozen tissue was weighed into a pre-chilled 2 ml 96-well glass vials. 20 μl of deuterated internal standards was added, (Appendix Table S1 for exact amount of each internal standard) to each vial containing ground tissues. Samples were extracted twice with 1 ml of 80% methanol in 1% acetic acid for 4 h at 4°C . Plates were centrifuged and the supernatants transferred to another 2 ml 96-well plate, evaporated under nitrogen and reconstituted in 1 ml of 1 M acetic acid. Plant hormones extract was purified with solid phase extraction using Oasis MCX cartridge (Waters) equilibrated with 1 M acetic acid, neutral and acidic hormones were eluted with methanol, and cytokinins were eluted with 60% aqueous methanol containing 0.35 M ammonium hydroxide. Elution solvents were evaporated and samples reconstituted in 100 μl of 25% methanol in water containing 0.1% formic acid and subjected to UPLC-MS/MS analysis.

CK analysis

Hormones were measured with a UPLC-MS/MS system consisting of AB Sciex 5500 triple quad mass spectrometry and Shimadzu UPLC system. Separation was achieved using an AQUITY UPLC BEH C 18, 1.7 μm , 2.1 \times 100 mm (Waters) maintained at 40°C . The mobile phase consisted of solvent A (0.1% v/v aqueous formic acid) and solvent B (0.1% v/v formic acid in methanol). The gradient profile was 80% A + 20 % B for 2 min, then a linear increase to 100% B for 10 min at a flow rate of 0.3 ml/min. Mass spectrometry was operated in segmented MRM mode. Precursor and production ions for each hormone and internal standard as well as mass spectrometry parameters are summarized in Appendix Table S2. Data processing including peak picking and integration was performed using Analyst Software.

RESULTS

Level of cytokinin metabolites during mid and late stage kernel

We measured the levels of active and inactive forms of kernel cytokinins at mid (21-22 DAP) and late (38 DAP) kernel stages, in both the embryo and endosperm. All metabolite data are described in Appendix Table S5. As previously reported (Rijavec et al., 2011), the three predominant forms of inactive cytokinin in kernel were zeatin riboside (ZR), the inactive form of zeatin, followed by isopentenyladenosine (iPA) and zeatin-9-glucoside (Z9G). Zeatin (Z) is the predominant active cytokinin in maize kernels (Figure 2). Zeatin levels decrease dramatically in the endosperm from 10.7 pmole/g FW at 22 DAP to 1.2 pmole/g FW at 38 DAP. However, zeatin levels in the embryo did not change appreciably and were

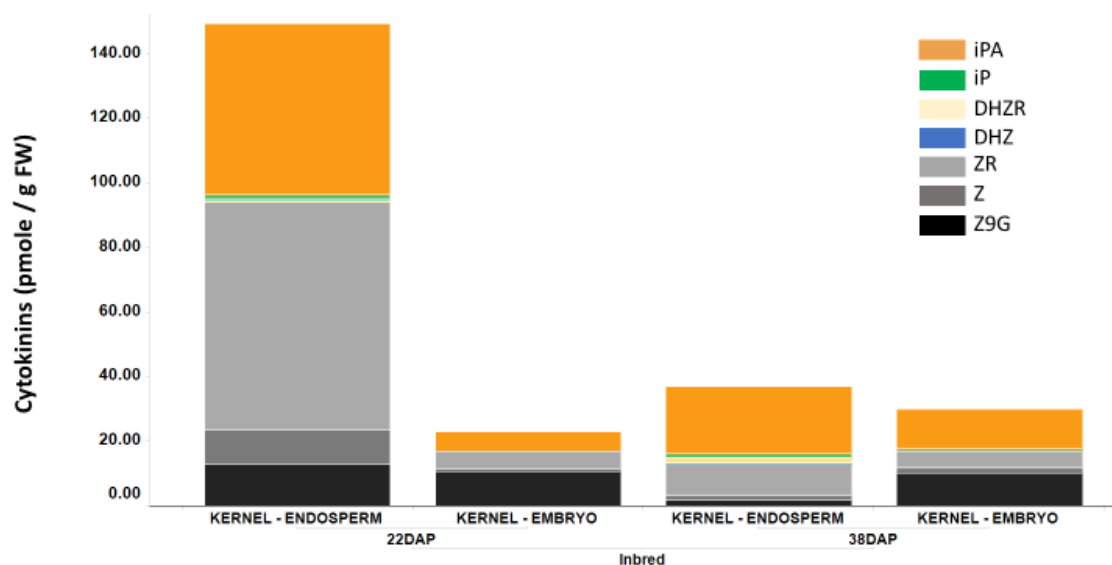


Figure 2. Levels of detected cytokinins in kernel embryo and endosperm at different development stages in inbred maize. Sum of expression level of each pathway at different scale at kernel 2DAP, embryo 12DAP, 15DAP, 18 DAP, 22 DAP, 28 DAP and 40 DAP, endosperm 12 DAP, 15 DAP, 18 DAP, 22 DAP, 28 DAP and 40 DAP. (A) Expression level of all genes involved in cytokinin activation pathway. (B) Expression level of all genes involved in cytokinin biosynthesis pathway. (C) Expression level of all genes involved in cytokinin conversion pathway. (D) Expression level of all genes involved in cytokinin degradation pathway. (E) Expression level of all genes involved in cytokinin signaling pathway. (F) Expression level of all genes involved in cytokinin transport pathway.

0.8 and 1.4 pmole/g FW for 22 and 38 DAP respectively (Figure 2). ZR levels are highest in kernel endosperm at 22 DAP but drop steeply from 70.4 pmole/g FW at 22 DAP to 9.6 pmole/g FW at 38 DAP respectively. Levels of iPA also decrease at 38 DAP.

While Z9G is not as abundant as ZR in 22 DAP endosperm, it shows a similar decrease in 38 DAP endosperm, from 12.9 to 2.0 pmole/g FW. Finally, cytokinin levels in maize embryo are generally lower than levels in maize endosperm and the ratio of different cytokinin forms is also different.

Identification of the genes involved in cytokinin metabolism pathways

To understand the molecular mechanisms and components that contribute to cytokinin levels across kernel development, we undertook a systematic approach to identify cytokinin pathway genes. Homology searches were performed using BLASTn software on the public database with currently known Arabidopsis protein sequences as seed sequences (<http://www.maizesequence.org/index.html>) (Brugière et al., 2008). The cutoff for the Ortholog BLAST search was $1e-05$. 120 maize genes with matches to the public database were identified. Transcript isoforms are also included (Appendix Table S3). The blast hits were also cross validated with previous publications (Schnable et

al., 2011). The genes, grouped by their annotated function, are shown in Table 1.

Expression patterns of cytokinin pathway genes in maize kernel

A microarray designed by Affymetrix and Monsanto was used to study dynamic gene expression during kernel development from fertilization to physiological maturity. Gene expression profiles were investigated during kernel development in our inbred line. Embryo and endosperm were dissected from kernel at 2DAP, 12DAP, 15DAP, 18DAP, 22DAP, 28DAP and 40DAP. Our expression data cover late stage kernel (40DAP) expression, which was not included in the maize atlas expression study (Sekhon et al. 2011). All expression data are shown in Appendix Table S4.

The activities of each group of genes were compared in different tissues at different developmental stages. We defined four relative expression levels based on the range of expression value; 500-1000 is defined as low expression, 1000-5000 is defined as medium expression, 5000-10000 is defined as high expression, and > 10000 is defined as extremely high expression. To further investigate individual gene expression in relation to cytokinin level change in all cytokinin pathways, the expression of genes within these pathways was compared across development in both embryo and endosperm (Figures 4 to 8). We selected genes with

Table 1. Number of CK pathway gene in each functional group in maize.

Maize cytokinin pathway genes		
Pathway	Gene family name	Family size
Cytokinin activation	LOG	4
Cytokinin conversion	ZOGT	9
	β -glucosidase	24
Cytokinin degradation	CK-N-GT	2
	CKX	15
Cytokinin signaling	ZmHK	7
	ZmHP	9
	ZmARR	28
Cytokinin transport	ENT	1
	PUP	7
Cytokinin biosynthesis	IPT	6
	CYP735A	8

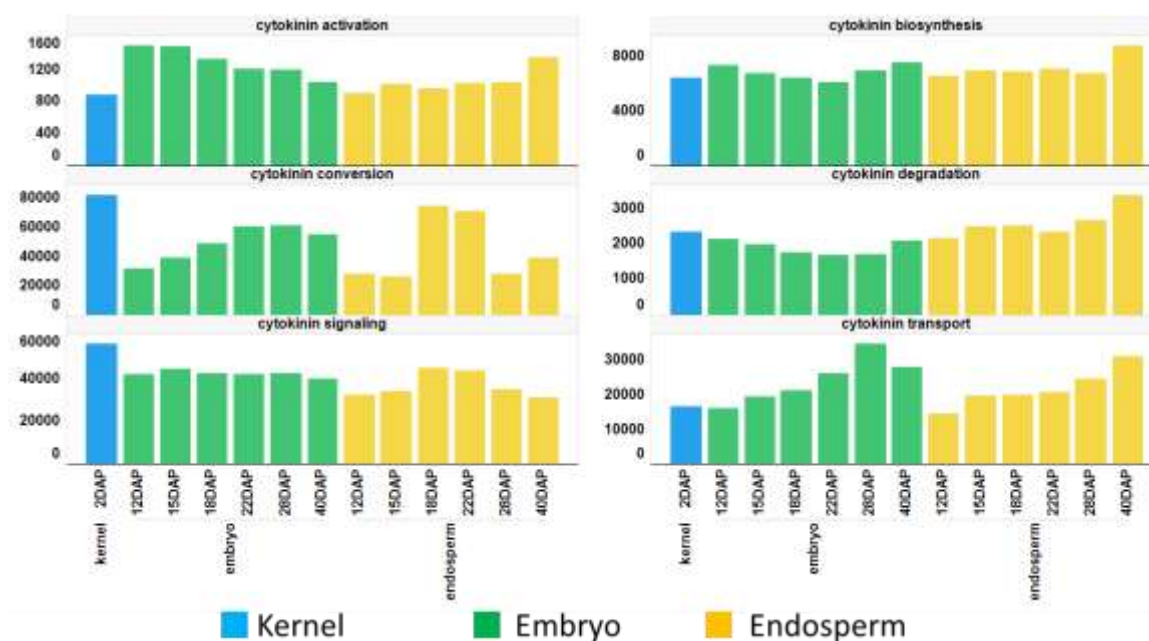


Figure 3. Sum of expression level of each pathway at different scale. Expression of selected genes from CK conversion pathway. Expression level of GRMZM2G031660 (β -glucosidase (β Glc), GRMZM2G043295(ZOGT), GRMZM2G055699, GRMZM2G108133(β -glucosidase (β Glc), GRMZM2G118003(β -glucosidase (β Glc), GRMZM2G148176(β -glucosidase (β Glc), GRMZM2G168474(ZOGT), GRMZM2G178209(ZOGT), GRMZM2G376416(β -glucosidase (β Glc).

expression level greater than 500 and those which had expression level changes across development. These selected genes are included in the Figures 4 to 8.

The overall expression of the CK functional groups (Table 1) is shown in Figure 3. The genes for cytokinin

conversion are highly active and dynamic across kernel development, and are at their highest in stage 2DAP kernels. Their expression drops at 12DAP, and resumes at mid to late stage of kernel development. The cytokinin signaling pathway is also highly expressed across kernel

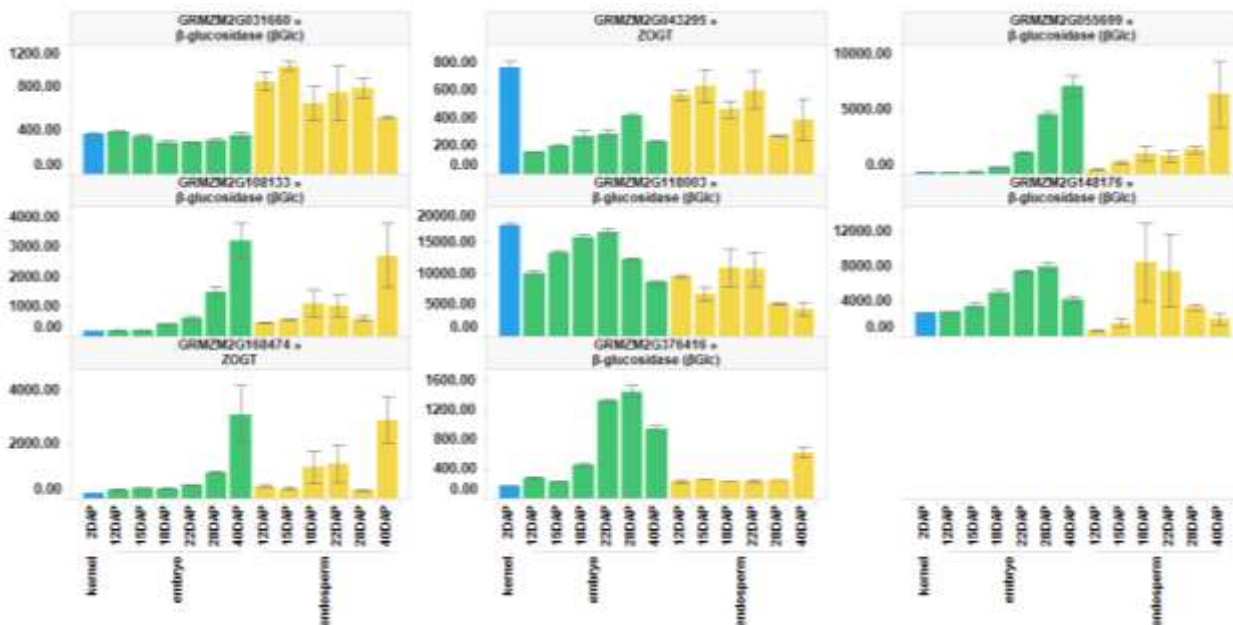


Figure 4. Expression of selected genes from CK conversion pathway. Expression level of GRMZM2G348452 (CKX10), GRMZM5G817173 (CKX4).

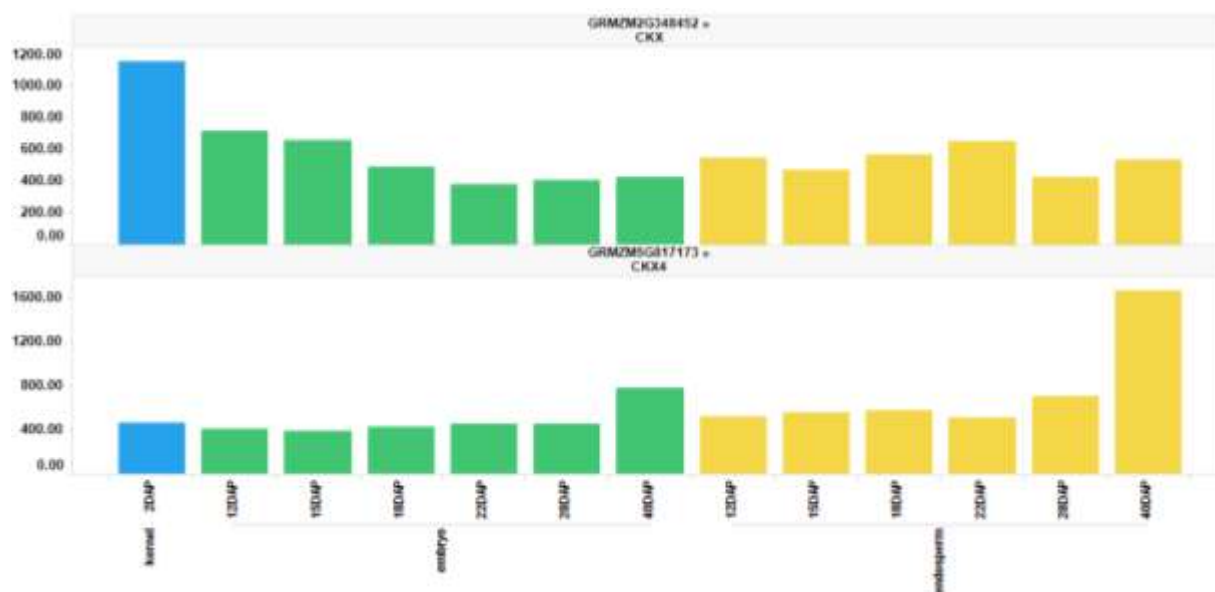


Figure 5. Expression of selected genes from CK degradation pathway. Expression level of GRMZM2G014154 (ZmHP2), GRMZM2G016439 (ZmHP3), GRMZM2G040736 (RR4), GRMZM2G095727 (RR14), GRMZM2G099797 (RR18), GRMZM2G409974 (RR27), GRMZM2G 479110 (RR25), GRMZM2G156019 (RR7), GRMZM2G392101 (RR3), GRMZM2G126834 (RR28), GRMZM2G151223 (HK7).

development. Interestingly, cytokinin transport pathway activity increases as kernel develops in both embryo and endosperm. Compared to other cytokinin metabolism pathway genes, the expression of cytokinin activation genes is lower.

Expression of cytokinin conversion pathway genes

Cytokinin conversion pathway genes are highly expressed compared to genes in other pathways in both embryo and endosperm. Two gene families were grouped in this

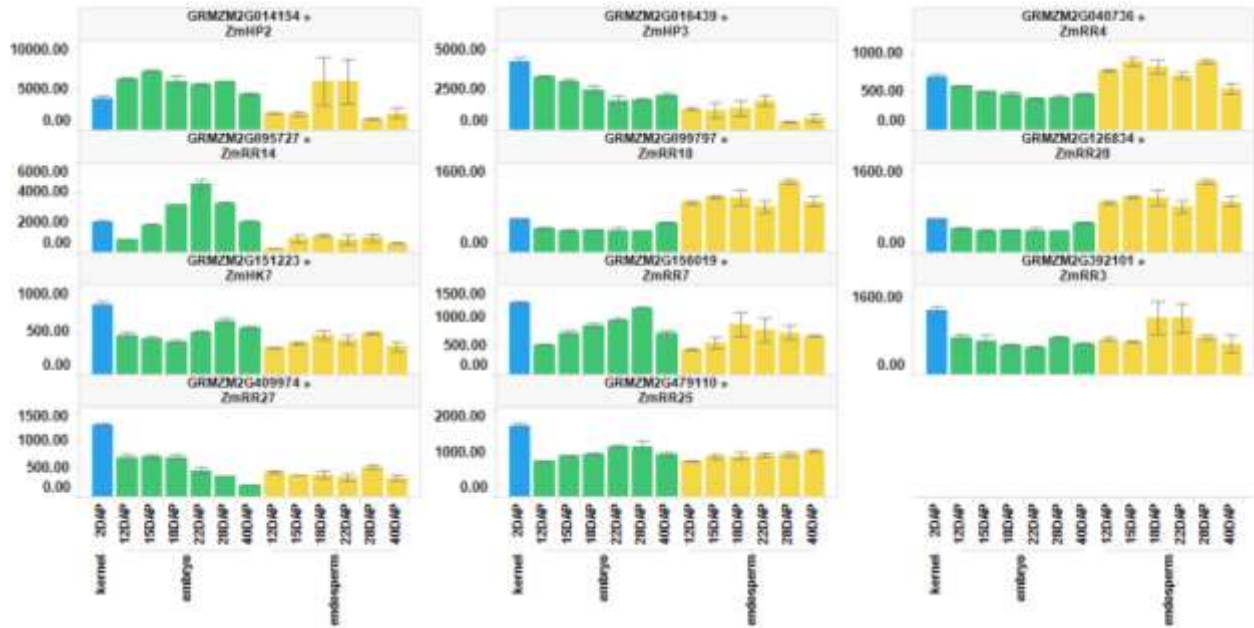


Figure 6. Expression of selected genes in CK signaling pathway. Expression of GRMZM2G002391 (ENT), GRMZM2G009344 (PUP), GRMZM2G066923 (PUP), GRMZM2G146337 (PUP), GRMZM2G153438 (PUP), GRMZM2G389285 (PUP), GRMZM2G416625 (PUP).



Figure 7. Expression of selected genes in CK transport pathway. Expression of GRMZM2G022904 (CYP35A), GRMZM2G047684 (CYP35A), GRMZM2G116878 (CYP35A), GRMZM2G138750 (IPT).

pathway, ZOGT and β -glucosidase. ZOGT is responsible for conversion of cytokinin from active to inactive form. β -glucosidase is responsible for conversion from inactive to active form of CK. Six β -glucosidase genes and two ZOGT genes are presented in Figure 4. The two ZOGT

genes tend to be more highly expressed in late endosperm at 40 DAP. GRMZM2G168474 level increases dramatically at 40DAP and correlates with decreased level of cytokinin at 38DAP. In general, β -glucosidase gene activity decreases in 40DAP

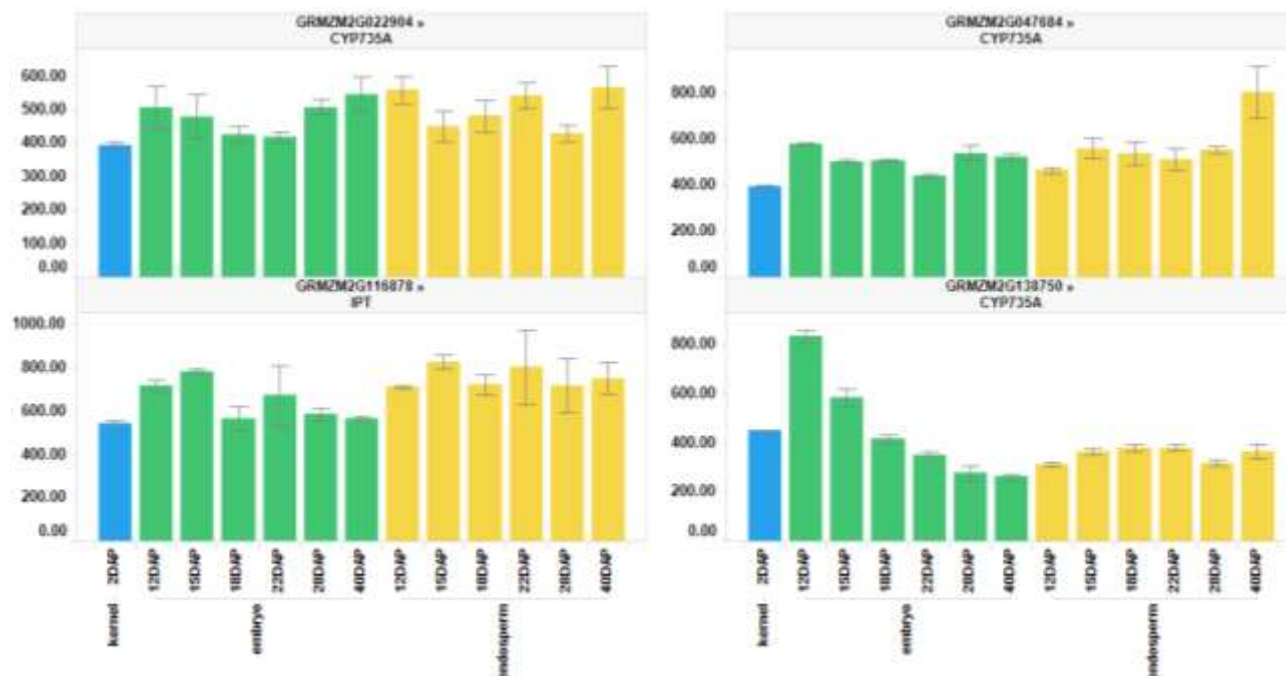


Figure 8. Expression of selected genes in CK biosynthesis pathway.

endosperm. GRMZM2G108133 and GRMZM2G055699 activity increase at 40DAP. GRMZM2G118003 (ZmBGLU18) expresses highly in the kernel at 2DAP. ZmBGLU18 continuously expresses higher in embryo and high to medium in endosperm across all developmental stages. GRMZM2G108133 (β Glc), GRMZM2G055699 (β Glc) and GRMZM2G168474 (ZOGT) share similar expression profiles, which suggests they may be coordinately regulated. They are at a low to medium level in most developmental stages and are up-regulated at 40DAP. GRMZM2G148176 (β Glc) is up-regulated at 18-22 DAP in endosperm and embryo.

Expression of cytokinin degradation pathway genes

Cytokinin oxidase (CKX) and cytokinin-N-glucosyltransferase inactivate cytokinin by conjugation. These two gene families represent the initial reaction in the two cytokinin degradation pathways. The expression of selected genes from CK degradation pathway is shown in Figure 5. Overall, the genes of the CK degradation pathway are not highly expressed. Two genes are expressed at medium level. GRMZM2G348452 (CKX10) expresses at kernel 2DAP and is down-regulated in both embryo and endosperm. GRMZM5G817173 (CKX4) expresses low across embryo and endosperm development, except it is up-regulated at 40 DAP in endosperm, correlating to the decreased level of cytokinin in endosperm at 40 DAP.

Expression of cytokinin signaling pathway

The CK signal is conveyed by CK-responsive His kinases (CK receptors; HKs), His-phosphotransfer proteins (HP) and CK primary response regulators (RRs) (Higuchi et al., 2004; Chu et al., 2011). The expression of selected genes in CK signaling pathway is shown in Figure 6. The genes in this pathway express at a low to medium level. GRMZM2G014154 (ZmHP2), GRMZM2G016439 (ZmHP3), GRMZM2G392101, GRMZM2G040736 express high in mid stage and are down-regulated at late stage 40DAP, which correlate with lower level of cytokinin at 40DAP. Both GRMZM2G016439 (ZmHP3) and GRMZM2G156019 (ZmRR7) are down-regulated after kernel 2DAP in both embryo and endosperm. In general, cytokinin signaling pathway activity is low at late stage of kernel development.

Expression of cytokinin transport pathway genes

The purine permease (PUP) family and the equilibrative nucleoside transporter (ENT) family are candidates for cytokinin transporters. Expression levels of seven selected genes in CK transport pathway are shown in Figure 7. GRMZM2G002391 expresses highly at kernel 2DAP, then are down regulated throughout the rest of embryo and endosperm development. GRMZM2G009344 is significantly upregulated at late stages in embryo, and up-regulated in the 40DAP of

endosperm development, indicating this transport gene correlates with lower level of cytokinin by transporting cytokinin out of the kernel. GRMZM2G066923 and GRMZM2G389285 expression also increase at 40DAP endosperm. GRMZM2G416625 expresses at medium level at kernel 2DAP and mid to late stage of embryo and endosperm development. PUP mediates cytokinin transport as cellular import.

Expression of cytokinin biosynthesis pathway genes

In higher plants, the CK biosynthesis is catalyzed by adenosine phosphate-isopentenyltransferase (IPT) and cytochrome P450 monooxygenases (P450s) (CYP735A). Expression levels of four selected genes in CK biosynthesis are shown in Figure 8. In general, the expression CK biosynthesis genes falls into the range of low expression and does not change significantly across developmental stages, indicating these genes are not responding to kernel developmental signaling and do not correlate with cytokinin level changes. GRMZM2G138750 encodes CYP735A, which is up-regulated at kernel 2DAP, suggesting this gene is critical for cytokinin synthesis at early stages.

DISCUSSION

Cytokinins (CK) are key determinants of seed size and changes in cytokinin levels or activity can impact crop yield. Given that lower cytokinin levels in mature kernels help prevent an unfavorable agricultural phenotype, the regulation of level of cytokinin has critical impact on kernel traits not only at early kernel developmental stage, but also during the late stage. To gain an improved understanding of the role of cytokinins in kernel development, we took a systematic approach to identify CK metabolism genes including; biosynthesis, transport, conversion, signaling and degradation with the view of identifying promising target genes to manipulate crop yield. Less is known about cytokinin biology during the later stage of kernel development, and therefore our late-stage expression data represents a key unique addition to the body of accumulating data for these plant growth regulators. The molecular changes in these genes may contribute to the decreased cytokinin level at the late stage kernel. Those genes with significantly high expression level may be major contributors to cytokinin levels. However, a high expression level may not necessarily translate into high enzyme activity, necessary to impact the cytokinin level.

In our study, we have followed the expression of two classes of cytokinin degradation genes in both endosperm and embryo, cytokinin oxidase (CKX) and cytokinin-N-glucosyltransferase which inactivate cytokinin by conjugation. These two gene types represent the initial

reaction in the two cytokinin degradation pathways. Our data shows that in both endosperm and embryo, GRMZM5G817173, a cytokinin oxidase, increases gradually over development but shows a sharp rise at 40DAP (Figure 6). The inverse correlation between CKX gene, GRMZM5G817173 expression and cytokinin levels (Figures 6 and 2) observed in our study, especially in the late stages of development, provides additional support to suggest that cytokinin levels are primarily modulated by cytokinin oxidases and that late-stage targeted expression of CKX genes may be a useful strategy to increase crop yield. At the same time, several major active and inactive cytokinins decrease substantially in the both the endosperm and embryo between R3 and R5. DHZ is unique compared to the other cytokinins since it is higher at R5 than R3 (Figure 2).

Cytokinin conversion pathway genes (Figure 4) control the level of active vs. inactive cytokinins and are expressed at a high level compared to genes in other cytokinin metabolic pathways in both embryo and endosperm. Several members of the cytokinin conversion group (especially two β -glucosidases, GRMZM2G016890 and GRMZM2G118003) were the most highly expressed of all the genes throughout the developmental stages we studied, suggesting that the conversion genes may be a key means to regulate overall active cytokinin levels (Frebort et al., 2011). B-glucosidases are necessary to maintain the levels of active cytokinins which facilitate kernel growth and development (Frebort et al., 2011). One ZOGT gene, GRMZM2G168747 is significantly upregulated at late stage of kernel, indicating that some active cytokinin is inactivated at late stage. This change indicates either that cytokinins are under dynamic conversion across developmental stages in these tissues, which leads to changes in the ratio or maintenance of the level of active versus inactive cytokinin. Over-expression of conversion genes in the endosperm or embryo might increase or decrease active cytokinin levels in a developmental specific manner, and this may be a strategy for yield improvement through fine control of active vs inactive cytokinin ratio.

CK transport genes express higher in endosperm compared to embryo, suggesting that the endosperm may supply cytokinins until the embryo can synthesize its own. The expression of three transport genes increases between mid to late stage of kernel development, suggesting cytokinin is transported out during the late stage.

Overall the level of CK pathway activity in endosperm and embryo may explain why the level of cytokinin is higher in endosperm. Cytokinin biosynthesis genes are not significantly differentially expressed across developmental stages, except GRMZM2G138750 which expresses highly in early embryo and decreases as the kernel develops. Our data support the hypothesis that CK is transported and not synthesized *de novo* in the embryo during the early and mid-stages of seed growth (Davey

and Staden, 1979). Cytokinin signaling generally decreases at late stage of kernel development in both embryo and endosperm. The CK signal is conveyed by a two component cytokinin signaling system, the so-called histidyl to aspartyl system. Nuclease response regulators and histidine phosphotransfer expression levels are much lower than most of the other cytokinin genes and they may require much subtler changes in expression to produce desired phenotypic effects.

Conclusion

We measured three forms of active and storage cytokinins in embryo vs. endosperm at different stages of development. Zeatin is the predominant active cytokinin and ZR is the dominant inactive form. CK levels decrease from R3 to R5 developmental stage (except DHZ) and storage forms of CK are higher but correlated to active forms. Except IP, CK levels are higher in the endosperm than the embryo.

We demonstrated the expression level of CK metabolism gene families and individual genes comparing different stages of development and embryo vs. endosperm. Individual genes from different cytokinin metabolic pathways together coordinate precise control of cytokinin level and kernel development. Overall, CK degradation and conversion may impact level and activity of cytokinins in late stage kernels at a larger scale, particularly the candidate genes with drastic expression shifts would be good targets for genetic modifications to prevent agricultural off-types, although CK synthesis might also be a good target even at a smaller scale.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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ABBREVIATIONS

CK, Cytokinin; **DAP**, days after pollination; **PUP**, purine permease; **ENT**, equilibrative nucleoside transporter; **CKX**, CK dehydrogenase; **βGlc**, β-glucosidase; **ZOGT**, O-glucosyltransferase; **CK-N-GT**, cytokinin N-glucosyltransferase; **QTL**, quantitative trait loci; **BLAST**, Basic local alignment search tool; **MRM**, multiple reaction monitoring; **IPT**, isopentenyl transferase; **LOG**, Lonely guy.

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Supplemental Table S1. List of plant hormone standards and deuterated internal standards.

Item #	Name	Cat No	Vendors	Pmole Added
21	trans-zeatin (Z)	Z0876	Sigma	
22	6-(g,g-Dimethylallylamino)purine riboside (IPR)	D7257	Sigma	
23	6-(g,g-Dimethylallylamino)purine (iP)	D7674	Sigma	
24	ZEATIN RIBOSIDE (ZR)	Z0375	Sigma	
25	Trans-Zeatin-9-glucoside (Z9G)	001 0471	OIChemIm LTD	
26	DIHYDROZEATIN (DHZ)	001 0601	OIChemIm LTD	
27	DIHYDROZEATIN RIBOSIDE (DHZR)	001 0611	OIChemIm LTD	
40	2H5 t-zeatin		OIChemIm LTD	20
41	2H5 t-zeatin riboside		OIChemIm LTD	20
42	2H5 t-zeatin-9-b-D-Glucoside		OIChemIm LTD	10
43	2H3 DL-Dihydrozeatin		OIChemIm LTD	20
44	2H3 (RS)-dihydrozeatin riboside		OIChemIm LTD	10
45	d6-(2-Isopentenyl)adenine		OIChemIm LTD	10
46	2H6 N6(2-isopentenyl)adenosine		OIChemIm LTD	10

Supplemental Table S2. Mass spectrometry MRM acquisition parameters.

Segments	ID	RT min	Q1 Mass	Q3 Mass	msec	DP	CE	CXP
Period 1	d5-tZG	1.8	387.12	225.00	100	86	27	18
	d5-tZ	1.8	224.69	136.90	100	126	25	12
	tZ	1.8	219.70	136.00	100	26	23	12
	DHZ	1.8	221.59	135.80	100	71	29	10
	ZG	1.8	381.89	220.00	100	151	27	18
	d3-DHZ	1.8	224.67	135.90	100	36	29	12
Period 2	d5-tZR	2.8	356.89	225.00	100	136	25	18
	tZR	2.7	351.89	220.00	100	136	25	16
	d3-DHZR	2.8	356.90	225.00	100	66	29	16
	DHZR	2.8	354.00	222.00	100	146	27	16
Period 3	d6-iP	4.0	210.14	136.90	50	131	21	12
	iP	4.1	203.77	135.90	50	136	19	10
	d6-iPR	4.9	342.02	210.00	50	146	25	16
	iPR	4.9	335.59	203.90	50	46	23	24

Supplemental Table S3. List of genes included in cytokinin pathways.

Gene name	Gene ID	Pathway
IPT	GRMZM2G102915	Cytokinin biosynthesis
IPT	GRMZM2G436770	Cytokinin biosynthesis
IPT	GRMZM2G097258	Cytokinin biosynthesis
IPT	GRMZM2G116878	Cytokinin biosynthesis
IPT	GRMZM2G018046	Cytokinin biosynthesis
IPT	GRMZM2G104559	Cytokinin biosynthesis
CYP735A	GRMZM2G161158	Cytokinin biosynthesis
CYP735A	GRMZM2G022904	Cytokinin biosynthesis
CYP735A	GRMZM2G076936	Cytokinin biosynthesis
CYP735A	GRMZM2G138750	Cytokinin biosynthesis
CYP735A	GRMZM2G129860	Cytokinin biosynthesis
CYP735A	GRMZM2G459563	Cytokinin biosynthesis
CYP735A	GRMZM5G852663	Cytokinin biosynthesis
CYP735A	GRMZM2G047684	Cytokinin biosynthesis
β -glucosidase (β Glc)	GRMZM2G016890	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G008247	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G120962	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G014844	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G077015	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G076946	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G426467	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G174699	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G362362	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G055699	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G069024	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G376416	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G108133	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G148176	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G118003	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G112704	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G163544	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G015804	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM5G0828987	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G021379	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G031660	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G457040	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM2G012236	Cytokinin conversion
β -glucosidase (β Glc)	GRMZM5G882852	Cytokinin conversion
ZOGT	GRMZM2G120016	Cytokinin conversion
ZOGT	GRMZM2G086925	Cytokinin conversion
ZOGT	GRMZM2G168474	Cytokinin conversion
ZOGT	GRMZM2G075431	Cytokinin conversion
ZOGT	GRMZM2G178209	Cytokinin conversion
ZOGT	GRMZM2G058314	Cytokinin conversion
ZOGT	GRMZM2G338465	Cytokinin conversion
ZOGT	GRMZM2G043295	Cytokinin conversion
ZOGT	GRMZM2G159404	Cytokinin conversion
CKX12	GRMZM2G008792	Cytokinin degradation
CKX4B	GRMZM2G024476	Cytokinin degradation
CKO2	GRMZM2G050997	Cytokinin degradation
CKX8	GRMZM2G114427	Cytokinin degradation

Supplemental Table S3. Contd.

Gene name	Gene ID	Pathway
CKX	GRMZM2G122340	Cytokinin degradation
CKX8	GRMZM2G134634	Cytokinin degradation
CKX1	GRMZM2G146644	Cytokinin degradation
CKX	GRMZM2G162048	Cytokinin degradation
CKX3	GRMZM2G167220	Cytokinin degradation
CKX	GRMZM2G170446	Cytokinin degradation
CKX	GRMZM2G303707	Cytokinin degradation
CKX5	GRMZM2G325612	Cytokinin degradation
CKX10	GRMZM2G348452	Cytokinin degradation
CKX6	GRMZM2G404443	Cytokinin degradation
CKX4	GRMZM5G817173	Cytokinin degradation
CK-N-GT	GRMZM2G083935	Cytokinin degradation
CK-N-GT	GRMZM2G082249	Cytokinin degradation
ZmHK1	GRMZM2G158252	Cytokinin signaling
ZmHK2	GRMZM2G423456	Cytokinin signaling
ZmHK3	GRMZM2G155767	Cytokinin signaling
ZmHK4	GRMZM2G039696	Cytokinin signaling
ZmHK5	GRMZM2G471529	Cytokinin signaling
ZmHK6	GRMZM2G125943	Cytokinin signaling
ZmHK7	GRMZM2G151223	Cytokinin signaling
ZmHP1	GRMZM2G451604	Cytokinin signaling
ZmHP2	GRMZM2G014154	Cytokinin signaling
ZmHP3	GRMZM2G016439	Cytokinin signaling
ZmHP4	GRMZM2G451604	Cytokinin signaling
ZmHP5	GRMZM2G124890	Cytokinin signaling
ZmHP6	GRMZM2G039246	Cytokinin signaling
ZmHP7	GRMZM2G016439	Cytokinin signaling
ZmHP8	GRMZM2G173710	Cytokinin signaling
ZmHP9	GRMZM2G451604	Cytokinin signaling
ZmRR1	GRMZM2G129954	Cytokinin signaling
ZmRR2	GRMZM2G319187	Cytokinin signaling
ZmRR3	GRMZM2G392101	Cytokinin signaling
ZmRR4	GRMZM2G040736	Cytokinin signaling
ZmRR5	GRMZM2G148056	Cytokinin signaling
ZmRR6	GRMZM2G096171	Cytokinin signaling
ZmRR7	GRMZM2G156019	Cytokinin signaling
ZmRR8	GRMZM2G179827	Cytokinin signaling
ZmRR9	GRMZM2G319187	Cytokinin signaling
ZmRR10	GRMZM2G016145	Cytokinin signaling
ZmRR11	GRMZM2G319187	Cytokinin signaling
ZmRR12	GRMZM2G005732	Cytokinin signaling
ZmRR13	GRMZM2G033962	Cytokinin signaling
ZmRR14	GRMZM2G095727	Cytokinin signaling
ZmRR15	GRMZM2G179024	Cytokinin signaling
ZmRR16	GRMZM2G020081	Cytokinin signaling
ZmRR17	GRMZM2G308046	Cytokinin signaling
ZmRR18	GRMZM2G099797	Cytokinin signaling
ZmRR19	GRMZM2G401821	Cytokinin signaling
ZmRR20	GRMZM2G013612	Cytokinin signaling
ZmRR21	GRMZM2G460594	Cytokinin signaling
ZmRR22	GRMZM2G177220	Cytokinin signaling

Supplemental Table S3. Contd.

Gene name	Gene ID	Pathway
ZmRR23	GRMZM2G100318	Cytokinin signaling
ZmRR24	GRMZM2G360523	Cytokinin signaling
ZmRR25	GRMZM2G479110	Cytokinin signaling
ZmRR26	GRMZM2G099797	Cytokinin signaling
ZmRR27	GRMZM2G409974	Cytokinin signaling
ZmRR28	GRMZM2G126834	Cytokinin signaling
PUP	GRMZM2G416625	Cytokinin transport
PUP	GRMZM2G009344	Cytokinin transport
PUP	GRMZM2G389285	Cytokinin transport
PUP	GRMZM2G146337	Cytokinin transport
PUP	GRMZM2G002391	Cytokinin transport
PUP	GRMZM2G066923	Cytokinin transport
PUP	GRMZM2G153438	Cytokinin transport
ENT	GRMZM2G002391_T02	Cytokinin transport
LOG	GRMZM2G471931	Cytokinin activation
LOG	GRMZM2G100360	Cytokinin activation
LOG	GRMZM5G896859	Cytokinin activation
LOG	GRMZM2G019363	Cytokinin activation

Supplemental Table S4. List of cytokinin pathway genes express in embryo and endosperm.

Pathway	Gene ID	Chart Label	Object name	Response name	Mean (predicted)	Standard error
Cytokinin degradation	GRMZM2G168474	endosperm_12DAP	A1ZM000065_at	endosperm_12DAP	451.0875	56.175
Cytokinin signaling	GRMZM2G016439	endosperm_12DAP	A1ZM000436_at	endosperm_12DAP	2150.138	209.025
Cytokinin signaling	GRMZM2G020081	endosperm_12DAP	A1ZM005041_at	endosperm_12DAP	206.4125	6.325
Cytokinin biosynthesis	GRMZM2G129860	endosperm_12DAP	A1ZM005050_at	endosperm_12DAP	123.525	8.25
Cytokinin signaling	GRMZM2G471529	endosperm_12DAP	A1ZM005128_at	endosperm_12DAP	96.225	1.25
Cytokinin signaling	GRMZM2G155767	endosperm_12DAP	A1ZM006236_a_at	endosperm_12DAP	281.1125	20.725
Cytokinin signaling	GRMZM2G155767	endosperm_12DAP	A1ZM006928_a_at	endosperm_12DAP	739.5375	18.125
Cytokinin signaling	GRMZM2G155767	endosperm_12DAP	A1ZM006928_x_at	endosperm_12DAP	582.05	11.85
Cytokinin biosynthesis	GRMZM2G459563	endosperm_12DAP	A1ZM008285_at	endosperm_12DAP	140.875	4.35
Cytokinin signaling	GRMZM2G099797	endosperm_12DAP	A1ZM009127_s_at	endosperm_12DAP	487.85	15.95
Cytokinin degradation	GRMZM2G086925	endosperm_12DAP	A1ZM009389_at	endosperm_12DAP	168.75	5.3
Cytokinin degradation	GRMZM2G120016	endosperm_12DAP	A1ZM009692_at	endosperm_12DAP	256.0375	16.625
Cytokinin degradation	GRMZM2G058314	endosperm_12DAP	A1ZM009786_at	endosperm_12DAP	137.35	2.3
Cytokinin signaling	GRMZM2G014154	endosperm_12DAP	A1ZM010384_a_at	endosperm_12DAP	4111.313	108.575
Cytokinin transport	GRMZM2G416625	endosperm_12DAP	A1ZM012937_at	endosperm_12DAP	1163.25	32.7
Cytokinin biosynthesis	GRMZM2G097258	endosperm_12DAP	A1ZM013917_s_at	endosperm_12DAP	187.05	5.65
Cytokinin transport	GRMZM2G146337	endosperm_12DAP	A1ZM015143_at	endosperm_12DAP	1146.113	105.275
Cytokinin transport	GRMZM2G066923	endosperm_12DAP	A1ZM016719_at	endosperm_12DAP	87.5125	3.025
Cytokinin signaling	GRMZM2G016145	endosperm_12DAP	A1ZM016721_a_at	endosperm_12DAP	245.7875	104.475
Cytokinin signaling	GRMZM2G040736	endosperm_12DAP	A1ZM019912_x_at	endosperm_12DAP	685.2	27.45
Cytokinin degradation	GRMZM2G043295	endosperm_12DAP	A1ZM020181_at	endosperm_12DAP	566.55	33.1
Cytokinin signaling	GRMZM2G016439	endosperm_12DAP	A1ZM020851_a_at	endosperm_12DAP	487.725	73.2
Cytokinin signaling	GRMZM2G016439	endosperm_12DAP	A1ZM020851_s_at	endosperm_12DAP	1281.625	89.15
Cytokinin transport	GRMZM2G009344	endosperm_12DAP	A1ZM020953_at	endosperm_12DAP	150.075	2.45
Cytokinin signaling	GRMZM2G179024	endosperm_12DAP	A1ZM021522_at	endosperm_12DAP	652.125	19.75
Cytokinin signaling	GRMZM2G125943	endosperm_12DAP	A1ZM022701_at	endosperm_12DAP	117.3125	2.725
Cytokinin signaling	GRMZM2G005732	endosperm_12DAP	A1ZM022780_a_at	endosperm_12DAP	85.525	2.9
Cytokinin signaling	GRMZM2G005732	endosperm_12DAP	A1ZM022780_at	endosperm_12DAP	190.4	18.1
Cytokinin signaling	GRMZM2G005732	endosperm_12DAP	A1ZM022791_at	endosperm_12DAP	292.5	3.4
Cytokinin signaling	GRMZM2G155767	endosperm_12DAP	A1ZM023285_a_at	endosperm_12DAP	732.3625	28.525
Cytokinin signaling	GRMZM2G155767	endosperm_12DAP	A1ZM023285_x_at	endosperm_12DAP	629.8875	31.875
Cytokinin signaling	GRMZM2G471529	endosperm_12DAP	A1ZM023515_at	endosperm_12DAP	418.2	17.2
Cytokinin signaling	GRMZM2G177220	endosperm_12DAP	A1ZM023797_s_at	endosperm_12DAP	139.1	8.85
Cytokinin transport	GRMZM2G416625	endosperm_12DAP	A1ZM024002_x_at	endosperm_12DAP	655.825	44.7
Cytokinin signaling	GRMZM2G156019	endosperm_12DAP	A1ZM025109_at	endosperm_12DAP	164.925	12.95
Cytokinin signaling	GRMZM2G409974	endosperm_12DAP	A1ZM025193_at	endosperm_12DAP	444.1875	26.575

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G040736	endosperm_12DAP	A1ZM025238_x_at	endosperm_12DAP	864.2375	2.775
Cytokinin degradation	GRMZM2G178209	endosperm_12DAP	A1ZM026067_at	endosperm_12DAP	222.85	10.25
Cytokinin degradation	GRMZM2G178209	endosperm_12DAP	A1ZM026519_at	endosperm_12DAP	636.8	21.9
Cytokinin signaling	GRMZM2G013612	endosperm_12DAP	A1ZM027161_at	endosperm_12DAP	105.475	5.45
Cytokinin signaling	GRMZM2G013612	endosperm_12DAP	A1ZM027162_at	endosperm_12DAP	108.9125	3.225
Cytokinin biosynthesis	GRMZM2G102915	endosperm_12DAP	A1ZM028114_at	endosperm_12DAP	147.6	5.55
Cytokinin degradation	GRMZM2G159404	endosperm_12DAP	A1ZM028351_at	endosperm_12DAP	332.875	14.15
Cytokinin signaling	GRMZM2G155767	endosperm_12DAP	A1ZM029562_at	endosperm_12DAP	272.575	11.15
Cytokinin biosynthesis	GRMZM2G022904	endosperm_12DAP	A1ZM029706_at	endosperm_12DAP	233.1375	14.175
Cytokinin biosynthesis	GRMZM2G436770	endosperm_12DAP	A1ZM029930_at	endosperm_12DAP	196.1625	14.325
Cytokinin biosynthesis	GRMZM2G022904	endosperm_12DAP	A1ZM030286_at	endosperm_12DAP	1286.913	102.325
Cytokinin signaling	GRMZM2G360523	endosperm_12DAP	A1ZM030383_at	endosperm_12DAP	119.625	6.9
Cytokinin biosynthesis	GRMZM2G076936	endosperm_12DAP	A1ZM030442_at	endosperm_12DAP	182.4375	5.575
Cytokinin degradation	GRMZM2G178209	endosperm_12DAP	A1ZM030523_at	endosperm_12DAP	306.425	25.55
Cytokinin biosynthesis	GRMZM2G104559	endosperm_12DAP	A1ZM030717_at	endosperm_12DAP	218.55	2.05
Cytokinin biosynthesis	GRMZM5G852663	endosperm_12DAP	A1ZM031200_at	endosperm_12DAP	269.025	11.45
Cytokinin biosynthesis	GRMZM2G161158	endosperm_12DAP	A1ZM032620_at	endosperm_12DAP	230.8875	6.525
Cytokinin biosynthesis	GRMZM2G022904	endosperm_12DAP	A1ZM032621_at	endosperm_12DAP	154.225	7.8
Cytokinin signaling	GRMZM2G155767	endosperm_12DAP	A1ZM034655_x_at	endosperm_12DAP	427.7125	5.525
Cytokinin signaling	GRMZM2G125943	endosperm_12DAP	A1ZM034694_at	endosperm_12DAP	105.7125	2.975
Cytokinin signaling	GRMZM2G151223	endosperm_12DAP	A1ZM034695_s_at	endosperm_12DAP	99.8375	3.075
Cytokinin biosynthesis	GRMZM2G436770	endosperm_12DAP	A1ZM035136_at	endosperm_12DAP	103.75	4.3
Cytokinin biosynthesis	GRMZM2G076936	endosperm_12DAP	A1ZM035251_at	endosperm_12DAP	210.55	12.6
Cytokinin transport	GRMZM2G153438	endosperm_12DAP	A1ZM036544_at	endosperm_12DAP	428.4375	30.125
Cytokinin biosynthesis	GRMZM5G852663	endosperm_12DAP	A1ZM036719_at	endosperm_12DAP	658.95	14.25
Cytokinin transport	GRMZM2G066923	endosperm_12DAP	A1ZM036929_s_at	endosperm_12DAP	911.9	62.95
Cytokinin signaling	GRMZM2G360523	endosperm_12DAP	A1ZM037835_at	endosperm_12DAP	302.5625	17.475
Cytokinin signaling	GRMZM2G125943	endosperm_12DAP	A1ZM038574_at	endosperm_12DAP	123.35	1.75
Cytokinin signaling	GRMZM2G155767	endosperm_12DAP	A1ZM039355_x_at	endosperm_12DAP	399.0375	48.925
Cytokinin biosynthesis	GRMZM2G116878	endosperm_12DAP	A1ZM041074_at	endosperm_12DAP	710.4125	8.625
Cytokinin transport	GRMZM2G153438	endosperm_12DAP	A1ZM041750_at	endosperm_12DAP	426.1125	15.175
Cytokinin signaling	GRMZM2G096171	endosperm_12DAP	A1ZM042484_at	endosperm_12DAP	165.05	6.25
Cytokinin biosynthesis	AC210013.4_FGT005	endosperm_12DAP	A1ZM051418_x_at	endosperm_12DAP	195.2875	15.475
Cytokinin degradation	GRMZM2G159404	endosperm_12DAP	A1ZM054142_at	endosperm_12DAP	113.3875	2.125
Cytokinin signaling	GRMZM2G096171	endosperm_12DAP	A1ZM054605_at	endosperm_12DAP	353.675	8.95
Cytokinin signaling	GRMZM2G095727	endosperm_12DAP	A1ZM054606_a_at	endosperm_12DAP	285.4375	16.725
Cytokinin signaling	GRMZM2G177220	endosperm_12DAP	A1ZM054608_a_at	endosperm_12DAP	342.8625	6.575

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G156019	endosperm_12DAP	A1ZM054609_at	endosperm_12DAP	700.475	21.2
Cytokinin signaling	GRMZM2G179827	endosperm_12DAP	A1ZM054610_at	endosperm_12DAP	242.6125	2.075
Cytokinin signaling	GRMZM2G129954	endosperm_12DAP	A1ZM054611_at	endosperm_12DAP	221.075	13.5
Cytokinin signaling	GRMZM2G392101	endosperm_12DAP	A1ZM054612_at	endosperm_12DAP	746.9625	32.375
Cytokinin signaling	GRMZM2G039246	endosperm_12DAP	A1ZM054872_at	endosperm_12DAP	102.15	2.4
Cytokinin signaling	GRMZM2G173710	endosperm_12DAP	A1ZM054873_at	endosperm_12DAP	125.2625	6.325
Cytokinin signaling	GRMZM2G173710	endosperm_12DAP	A1ZM054873_s_at	endosperm_12DAP	103.7875	4.675
Cytokinin transport	GRMZM2G009344	endosperm_12DAP	A1ZM054876_at	endosperm_12DAP	213.3625	25.625
Cytokinin signaling	GRMZM2G151223	endosperm_12DAP	A1ZM055183_a_at	endosperm_12DAP	165.25	4.1
Cytokinin signaling	GRMZM2G479110	endosperm_12DAP	A1ZM055354_at	endosperm_12DAP	828.05	16.15
Cytokinin biosynthesis	GRMZM2G138750	endosperm_12DAP	A1ZM055786_at	endosperm_12DAP	311.1125	9.125
Cytokinin biosynthesis	GRMZM2G459563	endosperm_12DAP	A1ZM055787_at	endosperm_12DAP	286.125	2.3
Cytokinin degradation	GRMZM2G338465	endosperm_12DAP	A1ZM055814_at	endosperm_12DAP	79.5375	1.475
Cytokinin signaling	GRMZM2G099797	endosperm_12DAP	A1ZM056039_at	endosperm_12DAP	1338.05	73.95
Cytokinin signaling	GRMZM2G099797	endosperm_12DAP	A1ZM056039_x_at	endosperm_12DAP	1357.9	10.8
Cytokinin signaling	GRMZM2G099797	endosperm_12DAP	A1ZM056078_at	endosperm_12DAP	713.1125	16.275
Cytokinin transport	GRMZM2G002391	endosperm_12DAP	A1ZM056320_at	endosperm_12DAP	1752.388	54.525
Cytokinin transport	GRMZM2G066923	endosperm_12DAP	A1ZM056353_a_at	endosperm_12DAP	2153.45	67.85
Cytokinin signaling	GRMZM2G039246	endosperm_12DAP	A1ZM059893_at	endosperm_12DAP	97.425	1.35
Cytokinin signaling	GRMZM2G471529	endosperm_12DAP	A1ZM060982_at	endosperm_12DAP	161.45	4.6
Cytokinin signaling	GRMZM2G360523	endosperm_12DAP	A1ZM061145_at	endosperm_12DAP	226.15	5.25
Cytokinin signaling	GRMZM2G179024	endosperm_12DAP	A1ZM062048_at	endosperm_12DAP	69.9625	3.825
Cytokinin signaling	GRMZM2G177220	endosperm_12DAP	A1ZM064845_s_at	endosperm_12DAP	355.675	36
Cytokinin transport	GRMZM2G009344	endosperm_12DAP	A1ZM065250_s_at	endosperm_12DAP	3567.45	155.7
Cytokinin transport	GRMZM2G389285	endosperm_12DAP	A1ZM072064_at	endosperm_12DAP	590.65	14.05
Cytokinin transport	GRMZM2G389285	endosperm_12DAP	A1ZM072065_at	endosperm_12DAP	192.8625	4.825
Cytokinin signaling	GRMZM2G014154	endosperm_12DAP	A1ZM072781_at	endosperm_12DAP	83.725	2.1
Cytokinin signaling	GRMZM2G129954	endosperm_12DAP	A1ZM074600_at	endosperm_12DAP	132.8125	2.175
Cytokinin transport	GRMZM2G066923	endosperm_12DAP	A1ZM076470_a_at	endosperm_12DAP	1457.063	55.475
Cytokinin signaling	GRMZM2G151223	endosperm_12DAP	A1ZM077656_at	endosperm_12DAP	686.1375	13.275
Cytokinin signaling	GRMZM2G155767	endosperm_12DAP	A1ZM083176_at	endosperm_12DAP	113.825	8.5
Cytokinin degradation	GRMZM2G168474	endosperm_15DAP	A1ZM000065_at	endosperm_15DAP	378.4625	67.175
Cytokinin signaling	GRMZM2G016439	endosperm_15DAP	A1ZM000436_at	endosperm_15DAP	1730	754.35
Cytokinin signaling	GRMZM2G020081	endosperm_15DAP	A1ZM005041_at	endosperm_15DAP	186.125	16.5
Cytokinin biosynthesis	GRMZM2G129860	endosperm_15DAP	A1ZM005050_at	endosperm_15DAP	125.45	4.75
Cytokinin signaling	GRMZM2G471529	endosperm_15DAP	A1ZM005128_at	endosperm_15DAP	99.925	1.05
Cytokinin signaling	GRMZM2G155767	endosperm_15DAP	A1ZM006236_a_at	endosperm_15DAP	283.225	10.25

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G155767	endosperm_15DAP	A1ZM006928_a_at	endosperm_15DAP	822.8375	142.275
Cytokinin signaling	GRMZM2G155767	endosperm_15DAP	A1ZM006928_x_at	endosperm_15DAP	501.9125	10.925
Cytokinin biosynthesis	GRMZM2G459563	endosperm_15DAP	A1ZM008285_at	endosperm_15DAP	145.4	8.8
Cytokinin signaling	GRMZM2G099797	endosperm_15DAP	A1ZM009127_s_at	endosperm_15DAP	286.95	13.25
Cytokinin degradation	GRMZM2G086925	endosperm_15DAP	A1ZM009389_at	endosperm_15DAP	169.5125	4.225
Cytokinin degradation	GRMZM2G120016	endosperm_15DAP	A1ZM009692_at	endosperm_15DAP	238.05	13.45
Cytokinin degradation	GRMZM2G058314	endosperm_15DAP	A1ZM009786_at	endosperm_15DAP	143.625	6.4
Cytokinin signaling	GRMZM2G014154	endosperm_15DAP	A1ZM010384_a_at	endosperm_15DAP	3938.4	578.65
Cytokinin transport	GRMZM2G416625	endosperm_15DAP	A1ZM012937_at	endosperm_15DAP	969.575	117.05
Cytokinin biosynthesis	GRMZM2G097258	endosperm_15DAP	A1ZM013917_s_at	endosperm_15DAP	222.2	13.6
Cytokinin transport	GRMZM2G146337	endosperm_15DAP	A1ZM015143_at	endosperm_15DAP	1200	129
Cytokinin transport	GRMZM2G066923	endosperm_15DAP	A1ZM016719_at	endosperm_15DAP	86.55	1.75
Cytokinin signaling	GRMZM2G016145	endosperm_15DAP	A1ZM016721_a_at	endosperm_15DAP	138.7	24.4
Cytokinin signaling	GRMZM2G040736	endosperm_15DAP	A1ZM019912_x_at	endosperm_15DAP	770.625	35.35
Cytokinin degradation	GRMZM2G043295	endosperm_15DAP	A1ZM020181_at	endosperm_15DAP	631.95	118.15
Cytokinin signaling	GRMZM2G016439	endosperm_15DAP	A1ZM020851_a_at	endosperm_15DAP	538.8	165.8
Cytokinin signaling	GRMZM2G016439	endosperm_15DAP	A1ZM020851_s_at	endosperm_15DAP	1454.35	491.95
Cytokinin transport	GRMZM2G009344	endosperm_15DAP	A1ZM020953_at	endosperm_15DAP	156.2	2.4
Cytokinin signaling	GRMZM2G179024	endosperm_15DAP	A1ZM021522_at	endosperm_15DAP	630.45	46.45
Cytokinin signaling	GRMZM2G125943	endosperm_15DAP	A1ZM022701_at	endosperm_15DAP	116.3375	2.725
Cytokinin signaling	GRMZM2G005732	endosperm_15DAP	A1ZM022780_a_at	endosperm_15DAP	88.9375	1.325
Cytokinin signaling	GRMZM2G005732	endosperm_15DAP	A1ZM022780_at	endosperm_15DAP	177.9	14.6
Cytokinin signaling	GRMZM2G005732	endosperm_15DAP	A1ZM022791_at	endosperm_15DAP	282.5375	14.775
Cytokinin signaling	GRMZM2G155767	endosperm_15DAP	A1ZM023285_a_at	endosperm_15DAP	599.0375	1.825
Cytokinin signaling	GRMZM2G155767	endosperm_15DAP	A1ZM023285_x_at	endosperm_15DAP	496.1875	10.775
Cytokinin signaling	GRMZM2G471529	endosperm_15DAP	A1ZM023515_at	endosperm_15DAP	441.3125	55.425
Cytokinin signaling	GRMZM2G177220	endosperm_15DAP	A1ZM023797_s_at	endosperm_15DAP	129.3	3.75
Cytokinin transport	GRMZM2G416625	endosperm_15DAP	A1ZM024002_x_at	endosperm_15DAP	676.85	6.75
Cytokinin signaling	GRMZM2G156019	endosperm_15DAP	A1ZM025109_at	endosperm_15DAP	162.425	2.4
Cytokinin signaling	GRMZM2G409974	endosperm_15DAP	A1ZM025193_at	endosperm_15DAP	393.825	2.9
Cytokinin signaling	GRMZM2G040736	endosperm_15DAP	A1ZM025238_x_at	endosperm_15DAP	1015.913	81.225
Cytokinin degradation	GRMZM2G178209	endosperm_15DAP	A1ZM026067_at	endosperm_15DAP	202.9625	8.825
Cytokinin degradation	GRMZM2G178209	endosperm_15DAP	A1ZM026519_at	endosperm_15DAP	707.4875	23.075
Cytokinin signaling	GRMZM2G013612	endosperm_15DAP	A1ZM027161_at	endosperm_15DAP	107.6625	3.825
Cytokinin signaling	GRMZM2G013612	endosperm_15DAP	A1ZM027162_at	endosperm_15DAP	113.15	0.55
Cytokinin biosynthesis	GRMZM2G102915	endosperm_15DAP	A1ZM028114_at	endosperm_15DAP	136.275	3.15
Cytokinin degradation	GRMZM2G159404	endosperm_15DAP	A1ZM028351_at	endosperm_15DAP	362.175	5.25

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G155767	endosperm_15DAP	A1ZM029562_at	endosperm_15DAP	264.1125	1.675
Cytokinin biosynthesis	GRMZM2G022904	endosperm_15DAP	A1ZM029706_at	endosperm_15DAP	210.8	11.1
Cytokinin biosynthesis	GRMZM2G436770	endosperm_15DAP	A1ZM029930_at	endosperm_15DAP	208.1375	7.675
Cytokinin biosynthesis	GRMZM2G022904	endosperm_15DAP	A1ZM030286_at	endosperm_15DAP	960.45	99.25
Cytokinin signaling	GRMZM2G360523	endosperm_15DAP	A1ZM030383_at	endosperm_15DAP	121.3375	3.225
Cytokinin biosynthesis	GRMZM2G076936	endosperm_15DAP	A1ZM030442_at	endosperm_15DAP	229.1375	14.875
Cytokinin degradation	GRMZM2G178209	endosperm_15DAP	A1ZM030523_at	endosperm_15DAP	324.2875	5.125
Cytokinin biosynthesis	GRMZM2G104559	endosperm_15DAP	A1ZM030717_at	endosperm_15DAP	239.9125	5.125
Cytokinin biosynthesis	GRMZM5G852663	endosperm_15DAP	A1ZM031200_at	endosperm_15DAP	306.7625	8.925
Cytokinin biosynthesis	GRMZM2G161158	endosperm_15DAP	A1ZM032620_at	endosperm_15DAP	246	10.25
Cytokinin biosynthesis	GRMZM2G022904	endosperm_15DAP	A1ZM032621_at	endosperm_15DAP	181.1125	22.975
Cytokinin signaling	GRMZM2G155767	endosperm_15DAP	A1ZM034655_x_at	endosperm_15DAP	398.8125	17.225
Cytokinin signaling	GRMZM2G125943	endosperm_15DAP	A1ZM034694_at	endosperm_15DAP	107.0375	3.025
Cytokinin signaling	GRMZM2G151223	endosperm_15DAP	A1ZM034695_s_at	endosperm_15DAP	104.225	1.15
Cytokinin biosynthesis	GRMZM2G436770	endosperm_15DAP	A1ZM035136_at	endosperm_15DAP	105.1375	1.825
Cytokinin biosynthesis	GRMZM2G076936	endosperm_15DAP	A1ZM035251_at	endosperm_15DAP	209.575	2.65
Cytokinin transport	GRMZM2G153438	endosperm_15DAP	A1ZM036544_at	endosperm_15DAP	446.95	9.2
Cytokinin biosynthesis	GRMZM5G852663	endosperm_15DAP	A1ZM036719_at	endosperm_15DAP	810.6875	78.925
Cytokinin transport	GRMZM2G066923	endosperm_15DAP	A1ZM036929_s_at	endosperm_15DAP	1860.263	92.275
Cytokinin signaling	GRMZM2G360523	endosperm_15DAP	A1ZM037835_at	endosperm_15DAP	223.125	28.8
Cytokinin signaling	GRMZM2G125943	endosperm_15DAP	A1ZM038574_at	endosperm_15DAP	121.475	5.05
Cytokinin signaling	GRMZM2G155767	endosperm_15DAP	A1ZM039355_x_at	endosperm_15DAP	429.625	7.85
Cytokinin biosynthesis	GRMZM2G116878	endosperm_15DAP	A1ZM041074_at	endosperm_15DAP	826.9625	33.325
Cytokinin transport	GRMZM2G153438	endosperm_15DAP	A1ZM041750_at	endosperm_15DAP	430.25	28.75
Cytokinin signaling	GRMZM2G096171	endosperm_15DAP	A1ZM042484_at	endosperm_15DAP	181.5375	4.725
Cytokinin biosynthesis	AC210013.4_FGT005	endosperm_15DAP	A1ZM051418_x_at	endosperm_15DAP	205.65	20.4
Cytokinin degradation	GRMZM2G159404	endosperm_15DAP	A1ZM054142_at	endosperm_15DAP	116.65	6.25
Cytokinin signaling	GRMZM2G096171	endosperm_15DAP	A1ZM054605_at	endosperm_15DAP	426.85	10.2
Cytokinin signaling	GRMZM2G095727	endosperm_15DAP	A1ZM054606_a_at	endosperm_15DAP	910.85	266.8
Cytokinin signaling	GRMZM2G177220	endosperm_15DAP	A1ZM054608_a_at	endosperm_15DAP	476.05	58.9
Cytokinin signaling	GRMZM2G156019	endosperm_15DAP	A1ZM054609_at	endosperm_15DAP	964.3625	189.025
Cytokinin signaling	GRMZM2G179827	endosperm_15DAP	A1ZM054610_at	endosperm_15DAP	222.9875	2.525
Cytokinin signaling	GRMZM2G129954	endosperm_15DAP	A1ZM054611_at	endosperm_15DAP	236.35	32.35
Cytokinin signaling	GRMZM2G392101	endosperm_15DAP	A1ZM054612_at	endosperm_15DAP	693.575	20.35
Cytokinin signaling	GRMZM2G039246	endosperm_15DAP	A1ZM054872_at	endosperm_15DAP	105.85	2.7
Cytokinin signaling	GRMZM2G173710	endosperm_15DAP	A1ZM054873_at	endosperm_15DAP	118.55	6.55
Cytokinin signaling	GRMZM2G173710	endosperm_15DAP	A1ZM054873_s_at	endosperm_15DAP	108.75	1.15

Supplemental Table S4. Contd.

Cytokinin transport	GRMZM2G009344	endosperm_15DAP	A1ZM054876_at	endosperm_15DAP	246.8375	61.775
Cytokinin signaling	GRMZM2G151223	endosperm_15DAP	A1ZM055183_a_at	endosperm_15DAP	146.1875	5.575
Cytokinin signaling	GRMZM2G479110	endosperm_15DAP	A1ZM055354_at	endosperm_15DAP	925.65	68.85
Cytokinin biosynthesis	GRMZM2G138750	endosperm_15DAP	A1ZM055786_at	endosperm_15DAP	365.4375	12.925
Cytokinin biosynthesis	GRMZM2G459563	endosperm_15DAP	A1ZM055787_at	endosperm_15DAP	360.8875	10.675
Cytokinin degradation	GRMZM2G338465	endosperm_15DAP	A1ZM055814_at	endosperm_15DAP	83.925	0.8
Cytokinin signaling	GRMZM2G099797	endosperm_15DAP	A1ZM056039_at	endosperm_15DAP	1433.138	7.375
Cytokinin signaling	GRMZM2G099797	endosperm_15DAP	A1ZM056039_x_at	endosperm_15DAP	1497.613	36.775
Cytokinin signaling	GRMZM2G099797	endosperm_15DAP	A1ZM056078_at	endosperm_15DAP	1105.65	107.1
Cytokinin transport	GRMZM2G002391	endosperm_15DAP	A1ZM056320_at	endosperm_15DAP	2070.8	123
Cytokinin transport	GRMZM2G066923	endosperm_15DAP	A1ZM056353_a_at	endosperm_15DAP	4396.325	38.4
Cytokinin signaling	GRMZM2G039246	endosperm_15DAP	A1ZM059893_at	endosperm_15DAP	98.2	4.85
Cytokinin signaling	GRMZM2G471529	endosperm_15DAP	A1ZM060982_at	endosperm_15DAP	186.7875	4.125
Cytokinin signaling	GRMZM2G360523	endosperm_15DAP	A1ZM061145_at	endosperm_15DAP	256.4625	6.625
Cytokinin signaling	GRMZM2G179024	endosperm_15DAP	A1ZM062048_at	endosperm_15DAP	70.2125	1.325
Cytokinin signaling	GRMZM2G177220	endosperm_15DAP	A1ZM064845_s_at	endosperm_15DAP	346.2125	5.525
Cytokinin transport	GRMZM2G009344	endosperm_15DAP	A1ZM065250_s_at	endosperm_15DAP	3333.888	528.625
Cytokinin transport	GRMZM2G389285	endosperm_15DAP	A1ZM072064_at	endosperm_15DAP	720.475	8.6
Cytokinin transport	GRMZM2G389285	endosperm_15DAP	A1ZM072065_at	endosperm_15DAP	225.4125	8.625
Cytokinin signaling	GRMZM2G014154	endosperm_15DAP	A1ZM072781_at	endosperm_15DAP	100.725	3.5
Cytokinin signaling	GRMZM2G129954	endosperm_15DAP	A1ZM074600_at	endosperm_15DAP	157.3625	3.225
Cytokinin transport	GRMZM2G066923	endosperm_15DAP	A1ZM076470_a_at	endosperm_15DAP	2993.15	47.45
Cytokinin signaling	GRMZM2G151223	endosperm_15DAP	A1ZM077656_at	endosperm_15DAP	862.3125	51.025
Cytokinin signaling	GRMZM2G155767	endosperm_15DAP	A1ZM083176_at	endosperm_15DAP	122.8125	6.475
Cytokinin degradation	GRMZM2G168474	endosperm_18DAP	A1ZM000065_at	endosperm_18DAP	1175.088	617.675
Cytokinin signaling	GRMZM2G016439	endosperm_18DAP	A1ZM000436_at	endosperm_18DAP	2224.688	925.325
Cytokinin signaling	GRMZM2G020081	endosperm_18DAP	A1ZM005041_at	endosperm_18DAP	211.4	10.05
Cytokinin biosynthesis	GRMZM2G129860	endosperm_18DAP	A1ZM005050_at	endosperm_18DAP	219.875	62.05
Cytokinin signaling	GRMZM2G471529	endosperm_18DAP	A1ZM005128_at	endosperm_18DAP	105.675	4.35
Cytokinin signaling	GRMZM2G155767	endosperm_18DAP	A1ZM006236_a_at	endosperm_18DAP	336.8125	69.925
Cytokinin signaling	GRMZM2G155767	endosperm_18DAP	A1ZM006928_a_at	endosperm_18DAP	1012.263	64.625
Cytokinin signaling	GRMZM2G155767	endosperm_18DAP	A1ZM006928_x_at	endosperm_18DAP	590.2	71.9
Cytokinin biosynthesis	GRMZM2G459563	endosperm_18DAP	A1ZM008285_at	endosperm_18DAP	142.0125	4.525
Cytokinin signaling	GRMZM2G099797	endosperm_18DAP	A1ZM009127_s_at	endosperm_18DAP	317.125	22.3
Cytokinin degradation	GRMZM2G086925	endosperm_18DAP	A1ZM009389_at	endosperm_18DAP	168.2375	16.875
Cytokinin degradation	GRMZM2G120016	endosperm_18DAP	A1ZM009692_at	endosperm_18DAP	271.8625	39.825
Cytokinin degradation	GRMZM2G058314	endosperm_18DAP	A1ZM009786_at	endosperm_18DAP	137.125	3.5
Cytokinin signaling	GRMZM2G014154	endosperm_18DAP	A1ZM010384_a_at	endosperm_18DAP	11859.15	5934.9

Supplemental Table S4. Contd.

Cytokinin transport	GRMZM2G416625	endosperm_18DAP	A1ZM012937_at	endosperm_18DAP	2775.863	1369.025
Cytokinin biosynthesis	GRMZM2G097258	endosperm_18DAP	A1ZM013917_s_at	endosperm_18DAP	293.0375	59.075
Cytokinin transport	GRMZM2G146337	endosperm_18DAP	A1ZM015143_at	endosperm_18DAP	1141.65	109.5
Cytokinin transport	GRMZM2G066923	endosperm_18DAP	A1ZM016719_at	endosperm_18DAP	82.7125	7.025
Cytokinin signaling	GRMZM2G016145	endosperm_18DAP	A1ZM016721_a_at	endosperm_18DAP	147.9125	45.425
Cytokinin signaling	GRMZM2G040736	endosperm_18DAP	A1ZM019912_x_at	endosperm_18DAP	712.25	7.55
Cytokinin degradation	GRMZM2G043295	endosperm_18DAP	A1ZM020181_at	endosperm_18DAP	466.65	58.7
Cytokinin signaling	GRMZM2G016439	endosperm_18DAP	A1ZM020851_a_at	endosperm_18DAP	462.925	104.8
Cytokinin signaling	GRMZM2G016439	endosperm_18DAP	A1ZM020851_s_at	endosperm_18DAP	1329.325	317.35
Cytokinin transport	GRMZM2G009344	endosperm_18DAP	A1ZM020953_at	endosperm_18DAP	153.3375	3.175
Cytokinin signaling	GRMZM2G179024	endosperm_18DAP	A1ZM021522_at	endosperm_18DAP	488.725	134.9
Cytokinin signaling	GRMZM2G125943	endosperm_18DAP	A1ZM022701_at	endosperm_18DAP	117.425	6.7
Cytokinin signaling	GRMZM2G005732	endosperm_18DAP	A1ZM022780_a_at	endosperm_18DAP	83.9875	4.475
Cytokinin signaling	GRMZM2G005732	endosperm_18DAP	A1ZM022780_at	endosperm_18DAP	165.9125	16.225
Cytokinin signaling	GRMZM2G005732	endosperm_18DAP	A1ZM022791_at	endosperm_18DAP	258.3625	1.075
Cytokinin signaling	GRMZM2G155767	endosperm_18DAP	A1ZM023285_a_at	endosperm_18DAP	777.825	62.15
Cytokinin signaling	GRMZM2G155767	endosperm_18DAP	A1ZM023285_x_at	endosperm_18DAP	615.7875	47.825
Cytokinin signaling	GRMZM2G471529	endosperm_18DAP	A1ZM023515_at	endosperm_18DAP	549.7	15.1
Cytokinin signaling	GRMZM2G177220	endosperm_18DAP	A1ZM023797_s_at	endosperm_18DAP	155.15	26.8
Cytokinin transport	GRMZM2G416625	endosperm_18DAP	A1ZM024002_x_at	endosperm_18DAP	996.525	228.45
Cytokinin signaling	GRMZM2G156019	endosperm_18DAP	A1ZM025109_at	endosperm_18DAP	173.6625	6.475
Cytokinin signaling	GRMZM2G409974	endosperm_18DAP	A1ZM025193_at	endosperm_18DAP	396.5875	64.875
Cytokinin signaling	GRMZM2G040736	endosperm_18DAP	A1ZM025238_x_at	endosperm_18DAP	925.2875	166.775
Cytokinin degradation	GRMZM2G178209	endosperm_18DAP	A1ZM026067_at	endosperm_18DAP	257.85	48.95
Cytokinin degradation	GRMZM2G178209	endosperm_18DAP	A1ZM026519_at	endosperm_18DAP	680.45	82.1
Cytokinin signaling	GRMZM2G013612	endosperm_18DAP	A1ZM027161_at	endosperm_18DAP	118.3625	11.975
Cytokinin signaling	GRMZM2G013612	endosperm_18DAP	A1ZM027162_at	endosperm_18DAP	108.075	3.5
Cytokinin biosynthesis	GRMZM2G102915	endosperm_18DAP	A1ZM028114_at	endosperm_18DAP	133.825	7.75
Cytokinin degradation	GRMZM2G159404	endosperm_18DAP	A1ZM028351_at	endosperm_18DAP	349.3625	20.675
Cytokinin signaling	GRMZM2G155767	endosperm_18DAP	A1ZM029562_at	endosperm_18DAP	236.9	23.9
Cytokinin biosynthesis	GRMZM2G022904	endosperm_18DAP	A1ZM029706_at	endosperm_18DAP	338.3875	92.675
Cytokinin biosynthesis	GRMZM2G436770	endosperm_18DAP	A1ZM029930_at	endosperm_18DAP	183.2	12.65
Cytokinin biosynthesis	GRMZM2G022904	endosperm_18DAP	A1ZM030286_at	endosperm_18DAP	948.5125	46.975
Cytokinin signaling	GRMZM2G360523	endosperm_18DAP	A1ZM030383_at	endosperm_18DAP	104.6375	4.925
Cytokinin biosynthesis	GRMZM2G076936	endosperm_18DAP	A1ZM030442_at	endosperm_18DAP	201.4875	11.625
Cytokinin degradation	GRMZM2G178209	endosperm_18DAP	A1ZM030523_at	endosperm_18DAP	326.7	25.25
Cytokinin biosynthesis	GRMZM2G104559	endosperm_18DAP	A1ZM030717_at	endosperm_18DAP	208.25	6

Supplemental Table S4. Contd.

Cytokinin biosynthesis	GRMZM5G852663	endosperm_18DAP	A1ZM031200_at	endosperm_18DAP	258.6875	6.225
Cytokinin biosynthesis	GRMZM2G161158	endosperm_18DAP	A1ZM032620_at	endosperm_18DAP	221.1375	15.025
Cytokinin biosynthesis	GRMZM2G022904	endosperm_18DAP	A1ZM032621_at	endosperm_18DAP	157.5625	5.075
Cytokinin signaling	GRMZM2G155767	endosperm_18DAP	A1ZM034655_x_at	endosperm_18DAP	359.275	13.2
Cytokinin signaling	GRMZM2G125943	endosperm_18DAP	A1ZM034694_at	endosperm_18DAP	108.0375	6.775
Cytokinin signaling	GRMZM2G151223	endosperm_18DAP	A1ZM034695_s_at	endosperm_18DAP	114.85	6.55
Cytokinin biosynthesis	GRMZM2G436770	endosperm_18DAP	A1ZM035136_at	endosperm_18DAP	90.9625	4.375
Cytokinin biosynthesis	GRMZM2G076936	endosperm_18DAP	A1ZM035251_at	endosperm_18DAP	185.75	13.5
Cytokinin transport	GRMZM2G153438	endosperm_18DAP	A1ZM036544_at	endosperm_18DAP	418.9625	20.625
Cytokinin biosynthesis	GRMZM5G852663	endosperm_18DAP	A1ZM036719_at	endosperm_18DAP	816.0375	98.125
Cytokinin transport	GRMZM2G066923	endosperm_18DAP	A1ZM036929_s_at	endosperm_18DAP	1291.213	347.425
Cytokinin signaling	GRMZM2G360523	endosperm_18DAP	A1ZM037835_at	endosperm_18DAP	207.775	22.7
Cytokinin signaling	GRMZM2G125943	endosperm_18DAP	A1ZM038574_at	endosperm_18DAP	115.8125	6.175
Cytokinin signaling	GRMZM2G155767	endosperm_18DAP	A1ZM039355_x_at	endosperm_18DAP	392.8625	25.775
Cytokinin biosynthesis	GRMZM2G116878	endosperm_18DAP	A1ZM041074_at	endosperm_18DAP	721.475	44.25
Cytokinin transport	GRMZM2G153438	endosperm_18DAP	A1ZM041750_at	endosperm_18DAP	410.4	14.55
Cytokinin signaling	GRMZM2G096171	endosperm_18DAP	A1ZM042484_at	endosperm_18DAP	157.025	7.2
Cytokinin biosynthesis	AC210013.4_FGT005	endosperm_18DAP	A1ZM051418_x_at	endosperm_18DAP	188.1625	14.325
Cytokinin degradation	GRMZM2G159404	endosperm_18DAP	A1ZM054142_at	endosperm_18DAP	117.925	5.85
Cytokinin signaling	GRMZM2G096171	endosperm_18DAP	A1ZM054605_at	endosperm_18DAP	798.3125	267.925
Cytokinin signaling	GRMZM2G095727	endosperm_18DAP	A1ZM054606_a_at	endosperm_18DAP	1122.65	85.2
Cytokinin signaling	GRMZM2G177220	endosperm_18DAP	A1ZM054608_a_at	endosperm_18DAP	785.8375	224.975
Cytokinin signaling	GRMZM2G156019	endosperm_18DAP	A1ZM054609_at	endosperm_18DAP	1580.788	414.175
Cytokinin signaling	GRMZM2G179827	endosperm_18DAP	A1ZM054610_at	endosperm_18DAP	182.725	19
Cytokinin signaling	GRMZM2G129954	endosperm_18DAP	A1ZM054611_at	endosperm_18DAP	510.8625	211.825
Cytokinin signaling	GRMZM2G392101	endosperm_18DAP	A1ZM054612_at	endosperm_18DAP	1200.463	339.525
Cytokinin signaling	GRMZM2G039246	endosperm_18DAP	A1ZM054872_at	endosperm_18DAP	239.5	91.5
Cytokinin signaling	GRMZM2G173710	endosperm_18DAP	A1ZM054873_at	endosperm_18DAP	103.35	2.7
Cytokinin signaling	GRMZM2G173710	endosperm_18DAP	A1ZM054873_s_at	endosperm_18DAP	99.0875	12.875
Cytokinin transport	GRMZM2G009344	endosperm_18DAP	A1ZM054876_at	endosperm_18DAP	237.6125	82.775
Cytokinin signaling	GRMZM2G151223	endosperm_18DAP	A1ZM055183_a_at	endosperm_18DAP	170.575	22.65
Cytokinin signaling	GRMZM2G479110	endosperm_18DAP	A1ZM055354_at	endosperm_18DAP	942.7625	91.525
Cytokinin biosynthesis	GRMZM2G138750	endosperm_18DAP	A1ZM055786_at	endosperm_18DAP	380.0875	13.425
Cytokinin biosynthesis	GRMZM2G459563	endosperm_18DAP	A1ZM055787_at	endosperm_18DAP	309.5875	38.775
Cytokinin degradation	GRMZM2G338465	endosperm_18DAP	A1ZM055814_at	endosperm_18DAP	94.575	4.1
Cytokinin signaling	GRMZM2G099797	endosperm_18DAP	A1ZM056039_at	endosperm_18DAP	1407.763	187.525
Cytokinin signaling	GRMZM2G099797	endosperm_18DAP	A1ZM056039_x_at	endosperm_18DAP	1467.888	180.325

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G099797	endosperm_18DAP	A1ZM056078_at	endosperm_18DAP	1078.75	209.6
Cytokinin transport	GRMZM2G002391	endosperm_18DAP	A1ZM056320_at	endosperm_18DAP	3010.738	685.875
Cytokinin transport	GRMZM2G066923	endosperm_18DAP	A1ZM056353_a_at	endosperm_18DAP	2958.15	949.5
Cytokinin signaling	GRMZM2G039246	endosperm_18DAP	A1ZM059893_at	endosperm_18DAP	100.425	7.2
Cytokinin signaling	GRMZM2G471529	endosperm_18DAP	A1ZM060982_at	endosperm_18DAP	189.9625	16.725
Cytokinin signaling	GRMZM2G360523	endosperm_18DAP	A1ZM061145_at	endosperm_18DAP	277.7875	43.075
Cytokinin signaling	GRMZM2G179024	endosperm_18DAP	A1ZM062048_at	endosperm_18DAP	72.1375	5.475
Cytokinin signaling	GRMZM2G177220	endosperm_18DAP	A1ZM064845_s_at	endosperm_18DAP	330.8875	45.175
Cytokinin transport	GRMZM2G009344	endosperm_18DAP	A1ZM065250_s_at	endosperm_18DAP	3815.925	793.6
Cytokinin transport	GRMZM2G389285	endosperm_18DAP	A1ZM072064_at	endosperm_18DAP	702.15	36.7
Cytokinin transport	GRMZM2G389285	endosperm_18DAP	A1ZM072065_at	endosperm_18DAP	179.525	14.5
Cytokinin signaling	GRMZM2G014154	endosperm_18DAP	A1ZM072781_at	endosperm_18DAP	98.0625	6.375
Cytokinin signaling	GRMZM2G129954	endosperm_18DAP	A1ZM074600_at	endosperm_18DAP	154.3875	13.675
Cytokinin transport	GRMZM2G066923	endosperm_18DAP	A1ZM076470_a_at	endosperm_18DAP	2073.325	735.95
Cytokinin signaling	GRMZM2G151223	endosperm_18DAP	A1ZM077656_at	endosperm_18DAP	1097.538	126.375
Cytokinin signaling	GRMZM2G155767	endosperm_18DAP	A1ZM083176_at	endosperm_18DAP	122.8125	1.075
Cytokinin degradation	GRMZM2G168474	endosperm_22DAP	A1ZM000065_at	endosperm_22DAP	1300.088	680.225
Cytokinin signaling	GRMZM2G016439	endosperm_22DAP	A1ZM000436_at	endosperm_22DAP	2985.288	727.625
Cytokinin signaling	GRMZM2G020081	endosperm_22DAP	A1ZM005041_at	endosperm_22DAP	214.25	35
Cytokinin biosynthesis	GRMZM2G129860	endosperm_22DAP	A1ZM005050_at	endosperm_22DAP	222.8	59.2
Cytokinin signaling	GRMZM2G471529	endosperm_22DAP	A1ZM005128_at	endosperm_22DAP	99.025	2.8
Cytokinin signaling	GRMZM2G155767	endosperm_22DAP	A1ZM006236_a_at	endosperm_22DAP	366.8625	60.625
Cytokinin signaling	GRMZM2G155767	endosperm_22DAP	A1ZM006928_a_at	endosperm_22DAP	877.3125	113.225
Cytokinin signaling	GRMZM2G155767	endosperm_22DAP	A1ZM006928_x_at	endosperm_22DAP	540.1875	101.875
Cytokinin biosynthesis	GRMZM2G459563	endosperm_22DAP	A1ZM008285_at	endosperm_22DAP	154.925	10.9
Cytokinin signaling	GRMZM2G099797	endosperm_22DAP	A1ZM009127_s_at	endosperm_22DAP	293.2	51.9
Cytokinin degradation	GRMZM2G086925	endosperm_22DAP	A1ZM009389_at	endosperm_22DAP	195.525	36.9
Cytokinin degradation	GRMZM2G120016	endosperm_22DAP	A1ZM009692_at	endosperm_22DAP	294.4125	55.025
Cytokinin degradation	GRMZM2G058314	endosperm_22DAP	A1ZM009786_at	endosperm_22DAP	150.625	10.1
Cytokinin signaling	GRMZM2G014154	endosperm_22DAP	A1ZM010384_a_at	endosperm_22DAP	11837.19	5397.175
Cytokinin transport	GRMZM2G416625	endosperm_22DAP	A1ZM012937_at	endosperm_22DAP	2903.888	1307.675
Cytokinin biosynthesis	GRMZM2G097258	endosperm_22DAP	A1ZM013917_s_at	endosperm_22DAP	298.7	53.9
Cytokinin transport	GRMZM2G146337	endosperm_22DAP	A1ZM015143_at	endosperm_22DAP	1221.288	59.325
Cytokinin transport	GRMZM2G066923	endosperm_22DAP	A1ZM016719_at	endosperm_22DAP	86.725	10.25
Cytokinin signaling	GRMZM2G016145	endosperm_22DAP	A1ZM016721_a_at	endosperm_22DAP	162.1375	25.925
Cytokinin signaling	GRMZM2G040736	endosperm_22DAP	A1ZM019912_x_at	endosperm_22DAP	672.775	50.35
Cytokinin degradation	GRMZM2G043295	endosperm_22DAP	A1ZM020181_at	endosperm_22DAP	604.8	135

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G016439	endosperm_22DAP	A1ZM020851_a_at	endosperm_22DAP	659.125	82.55
Cytokinin signaling	GRMZM2G016439	endosperm_22DAP	A1ZM020851_s_at	endosperm_22DAP	1884.813	169.975
Cytokinin transport	GRMZM2G009344	endosperm_22DAP	A1ZM020953_at	endosperm_22DAP	162.6625	7.875
Cytokinin signaling	GRMZM2G179024	endosperm_22DAP	A1ZM021522_at	endosperm_22DAP	387.75	76.6
Cytokinin signaling	GRMZM2G125943	endosperm_22DAP	A1ZM022701_at	endosperm_22DAP	131.2875	9.725
Cytokinin signaling	GRMZM2G005732	endosperm_22DAP	A1ZM022780_a_at	endosperm_22DAP	82.4125	7.275
Cytokinin signaling	GRMZM2G005732	endosperm_22DAP	A1ZM022780_at	endosperm_22DAP	200.7	36.6
Cytokinin signaling	GRMZM2G005732	endosperm_22DAP	A1ZM022791_at	endosperm_22DAP	301.4625	37.125
Cytokinin signaling	GRMZM2G155767	endosperm_22DAP	A1ZM023285_a_at	endosperm_22DAP	720.6	173
Cytokinin signaling	GRMZM2G155767	endosperm_22DAP	A1ZM023285_x_at	endosperm_22DAP	612.1	118.4
Cytokinin signaling	GRMZM2G471529	endosperm_22DAP	A1ZM023515_at	endosperm_22DAP	437.9	59.85
Cytokinin signaling	GRMZM2G177220	endosperm_22DAP	A1ZM023797_s_at	endosperm_22DAP	161.2375	16.175
Cytokinin transport	GRMZM2G416625	endosperm_22DAP	A1ZM024002_x_at	endosperm_22DAP	1046.225	264.35
Cytokinin signaling	GRMZM2G156019	endosperm_22DAP	A1ZM025109_at	endosperm_22DAP	164.825	6.95
Cytokinin signaling	GRMZM2G409974	endosperm_22DAP	A1ZM025193_at	endosperm_22DAP	342.3625	64.925
Cytokinin signaling	GRMZM2G040736	endosperm_22DAP	A1ZM025238_x_at	endosperm_22DAP	754.125	31.5
Cytokinin degradation	GRMZM2G178209	endosperm_22DAP	A1ZM026067_at	endosperm_22DAP	271.75	39.8
Cytokinin degradation	GRMZM2G178209	endosperm_22DAP	A1ZM026519_at	endosperm_22DAP	585.95	14.5
Cytokinin signaling	GRMZM2G013612	endosperm_22DAP	A1ZM027161_at	endosperm_22DAP	108.375	10.35
Cytokinin signaling	GRMZM2G013612	endosperm_22DAP	A1ZM027162_at	endosperm_22DAP	104.6	6.05
Cytokinin biosynthesis	GRMZM2G102915	endosperm_22DAP	A1ZM028114_at	endosperm_22DAP	147.8375	9.925
Cytokinin degradation	GRMZM2G159404	endosperm_22DAP	A1ZM028351_at	endosperm_22DAP	362.1875	38.925
Cytokinin signaling	GRMZM2G155767	endosperm_22DAP	A1ZM029562_at	endosperm_22DAP	253.7625	40.775
Cytokinin biosynthesis	GRMZM2G022904	endosperm_22DAP	A1ZM029706_at	endosperm_22DAP	318.9125	59.625
Cytokinin biosynthesis	GRMZM2G436770	endosperm_22DAP	A1ZM029930_at	endosperm_22DAP	184.0125	8.175
Cytokinin biosynthesis	GRMZM2G022904	endosperm_22DAP	A1ZM030286_at	endosperm_22DAP	1136.625	53
Cytokinin signaling	GRMZM2G360523	endosperm_22DAP	A1ZM030383_at	endosperm_22DAP	127.025	22.7
Cytokinin biosynthesis	GRMZM2G076936	endosperm_22DAP	A1ZM030442_at	endosperm_22DAP	195.3875	7.475
Cytokinin degradation	GRMZM2G178209	endosperm_22DAP	A1ZM030523_at	endosperm_22DAP	307.2625	4.025
Cytokinin biosynthesis	GRMZM2G104559	endosperm_22DAP	A1ZM030717_at	endosperm_22DAP	228.075	18.85
Cytokinin biosynthesis	GRMZM5G852663	endosperm_22DAP	A1ZM031200_at	endosperm_22DAP	278.8125	7.225
Cytokinin biosynthesis	GRMZM2G161158	endosperm_22DAP	A1ZM032620_at	endosperm_22DAP	230.5	16.2
Cytokinin biosynthesis	GRMZM2G022904	endosperm_22DAP	A1ZM032621_at	endosperm_22DAP	169.2625	0.875
Cytokinin signaling	GRMZM2G155767	endosperm_22DAP	A1ZM034655_x_at	endosperm_22DAP	410.225	40.3
Cytokinin signaling	GRMZM2G125943	endosperm_22DAP	A1ZM034694_at	endosperm_22DAP	114.475	15.1
Cytokinin signaling	GRMZM2G151223	endosperm_22DAP	A1ZM034695_s_at	endosperm_22DAP	121.3875	9.475
Cytokinin biosynthesis	GRMZM2G436770	endosperm_22DAP	A1ZM035136_at	endosperm_22DAP	106.175	19.55
Cytokinin biosynthesis	GRMZM2G076936	endosperm_22DAP	A1ZM035251_at	endosperm_22DAP	182.7375	2.675
Cytokinin transport	GRMZM2G153438	endosperm_22DAP	A1ZM036544_at	endosperm_22DAP	413.0625	8.275
Cytokinin biosynthesis	GRMZM5G852663	endosperm_22DAP	A1ZM036719_at	endosperm_22DAP	740.8375	83.625
Cytokinin transport	GRMZM2G066923	endosperm_22DAP	A1ZM036929_s_at	endosperm_22DAP	1398.838	496.175

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G360523	endosperm_22DAP	A1ZM037835_at	endosperm_22DAP	225.7125	25.725
Cytokinin signaling	GRMZM2G125943	endosperm_22DAP	A1ZM038574_at	endosperm_22DAP	112.0625	13.725
Cytokinin signaling	GRMZM2G155767	endosperm_22DAP	A1ZM039355_x_at	endosperm_22DAP	401.7625	36.875
Cytokinin biosynthesis	GRMZM2G116878	endosperm_22DAP	A1ZM041074_at	endosperm_22DAP	804.15	170.25
Cytokinin transport	GRMZM2G153438	endosperm_22DAP	A1ZM041750_at	endosperm_22DAP	416.3375	2.825
Cytokinin signaling	GRMZM2G096171	endosperm_22DAP	A1ZM042484_at	endosperm_22DAP	166.0375	16.675
Cytokinin biosynthesis	AC210013.4_FGT005	endosperm_22DAP	A1ZM051418_x_at	endosperm_22DAP	187.675	16
Cytokinin degradation	GRMZM2G159404	endosperm_22DAP	A1ZM054142_at	endosperm_22DAP	114.9	6.7
Cytokinin signaling	GRMZM2G096171	endosperm_22DAP	A1ZM054605_at	endosperm_22DAP	729.8	253.15
Cytokinin signaling	GRMZM2G095727	endosperm_22DAP	A1ZM054606_a_at	endosperm_22DAP	846.075	315.35
Cytokinin signaling	GRMZM2G177220	endosperm_22DAP	A1ZM054608_a_at	endosperm_22DAP	671.15	206.75
Cytokinin signaling	GRMZM2G156019	endosperm_22DAP	A1ZM054609_at	endosperm_22DAP	1410.875	422.85
Cytokinin signaling	GRMZM2G179827	endosperm_22DAP	A1ZM054610_at	endosperm_22DAP	242.475	20
Cytokinin signaling	GRMZM2G129954	endosperm_22DAP	A1ZM054611_at	endosperm_22DAP	498.3125	174.375
Cytokinin signaling	GRMZM2G392101	endosperm_22DAP	A1ZM054612_at	endosperm_22DAP	1191.338	310.925
Cytokinin signaling	GRMZM2G039246	endosperm_22DAP	A1ZM054872_at	endosperm_22DAP	234.45	77.5
Cytokinin signaling	GRMZM2G173710	endosperm_22DAP	A1ZM054873_at	endosperm_22DAP	119.6375	15.925
Cytokinin signaling	GRMZM2G173710	endosperm_22DAP	A1ZM054873_s_at	endosperm_22DAP	100.675	8.35
Cytokinin transport	GRMZM2G009344	endosperm_22DAP	A1ZM054876_at	endosperm_22DAP	287.475	33.8
Cytokinin signaling	GRMZM2G151223	endosperm_22DAP	A1ZM055183_a_at	endosperm_22DAP	181.05	16.6
Cytokinin signaling	GRMZM2G479110	endosperm_22DAP	A1ZM055354_at	endosperm_22DAP	956.7875	58.325
Cytokinin biosynthesis	GRMZM2G138750	endosperm_22DAP	A1ZM055786_at	endosperm_22DAP	381.625	14.3
Cytokinin biosynthesis	GRMZM2G459563	endosperm_22DAP	A1ZM055787_at	endosperm_22DAP	296.7	34.45
Cytokinin degradation	GRMZM2G338465	endosperm_22DAP	A1ZM055814_at	endosperm_22DAP	88.3625	11.425
Cytokinin signaling	GRMZM2G099797	endosperm_22DAP	A1ZM056039_at	endosperm_22DAP	1184.913	135.475
Cytokinin signaling	GRMZM2G099797	endosperm_22DAP	A1ZM056039_x_at	endosperm_22DAP	1165.65	106.6
Cytokinin signaling	GRMZM2G099797	endosperm_22DAP	A1ZM056078_at	endosperm_22DAP	920.9875	200.625
Cytokinin transport	GRMZM2G002391	endosperm_22DAP	A1ZM056320_at	endosperm_22DAP	3208.713	838.125
Cytokinin transport	GRMZM2G066923	endosperm_22DAP	A1ZM056353_a_at	endosperm_22DAP	3074.438	959.575
Cytokinin signaling	GRMZM2G039246	endosperm_22DAP	A1ZM059893_at	endosperm_22DAP	95.4125	10.325
Cytokinin signaling	GRMZM2G471529	endosperm_22DAP	A1ZM060982_at	endosperm_22DAP	174.575	17.15
Cytokinin signaling	GRMZM2G360523	endosperm_22DAP	A1ZM061145_at	endosperm_22DAP	242.425	32.25
Cytokinin signaling	GRMZM2G179024	endosperm_22DAP	A1ZM062048_at	endosperm_22DAP	72.575	1
Cytokinin signaling	GRMZM2G177220	endosperm_22DAP	A1ZM064845_s_at	endosperm_22DAP	360.15	95.8
Cytokinin transport	GRMZM2G009344	endosperm_22DAP	A1ZM065250_s_at	endosperm_22DAP	3980.063	530.575
Cytokinin transport	GRMZM2G389285	endosperm_22DAP	A1ZM072064_at	endosperm_22DAP	624.0875	27.075
Cytokinin transport	GRMZM2G389285	endosperm_22DAP	A1ZM072065_at	endosperm_22DAP	197.575	34.5
Cytokinin signaling	GRMZM2G014154	endosperm_22DAP	A1ZM072781_at	endosperm_22DAP	93.7375	6.775
Cytokinin signaling	GRMZM2G129954	endosperm_22DAP	A1ZM074600_at	endosperm_22DAP	148.1125	6.025
Cytokinin transport	GRMZM2G066923	endosperm_22DAP	A1ZM076470_a_at	endosperm_22DAP	2120.013	678.025
Cytokinin signaling	GRMZM2G151223	endosperm_22DAP	A1ZM077656_at	endosperm_22DAP	914.525	138.75

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G155767	endosperm_22DAP	A1ZM083176_at	endosperm_22DAP	119.225	3.1
Cytokinin degradation	GRMZM2G168474	endosperm_28DAP	A1ZM000065_at	endosperm_28DAP	305.825	6.5
Cytokinin signaling	GRMZM2G016439	endosperm_28DAP	A1ZM000436_at	endosperm_28DAP	550.0875	36.175
Cytokinin signaling	GRMZM2G020081	endosperm_28DAP	A1ZM005041_at	endosperm_28DAP	213.2625	28.425
Cytokinin biosynthesis	GRMZM2G129860	endosperm_28DAP	A1ZM005050_at	endosperm_28DAP	146.0875	6.625
Cytokinin signaling	GRMZM2G471529	endosperm_28DAP	A1ZM005128_at	endosperm_28DAP	109.65	3.45
Cytokinin signaling	GRMZM2G155767	endosperm_28DAP	A1ZM006236_a_at	endosperm_28DAP	253.3375	8.875
Cytokinin signaling	GRMZM2G155767	endosperm_28DAP	A1ZM006928_a_at	endosperm_28DAP	997.825	140.6
Cytokinin signaling	GRMZM2G155767	endosperm_28DAP	A1ZM006928_x_at	endosperm_28DAP	502.45	85.5
Cytokinin biosynthesis	GRMZM2G459563	endosperm_28DAP	A1ZM008285_at	endosperm_28DAP	158.6125	1.725
Cytokinin signaling	GRMZM2G099797	endosperm_28DAP	A1ZM009127_s_at	endosperm_28DAP	315.3125	97.025
Cytokinin degradation	GRMZM2G086925	endosperm_28DAP	A1ZM009389_at	endosperm_28DAP	159.8875	0.775
Cytokinin degradation	GRMZM2G120016	endosperm_28DAP	A1ZM009692_at	endosperm_28DAP	228.0625	13.975
Cytokinin degradation	GRMZM2G058314	endosperm_28DAP	A1ZM009786_at	endosperm_28DAP	138.7625	18.525
Cytokinin signaling	GRMZM2G014154	endosperm_28DAP	A1ZM010384_a_at	endosperm_28DAP	2655.9	241.55
Cytokinin transport	GRMZM2G416625	endosperm_28DAP	A1ZM012937_at	endosperm_28DAP	789.3625	7.325
Cytokinin biosynthesis	GRMZM2G097258	endosperm_28DAP	A1ZM013917_s_at	endosperm_28DAP	193.9125	4.725
Cytokinin transport	GRMZM2G146337	endosperm_28DAP	A1ZM015143_at	endosperm_28DAP	1598.675	365.3
Cytokinin transport	GRMZM2G066923	endosperm_28DAP	A1ZM016719_at	endosperm_28DAP	91.825	2.1
Cytokinin signaling	GRMZM2G016145	endosperm_28DAP	A1ZM016721_a_at	endosperm_28DAP	125.5875	4.275
Cytokinin signaling	GRMZM2G040736	endosperm_28DAP	A1ZM019912_x_at	endosperm_28DAP	752.625	34.75
Cytokinin degradation	GRMZM2G043295	endosperm_28DAP	A1ZM020181_at	endosperm_28DAP	278.8875	5.775
Cytokinin signaling	GRMZM2G016439	endosperm_28DAP	A1ZM020851_a_at	endosperm_28DAP	309.825	22.5
Cytokinin signaling	GRMZM2G016439	endosperm_28DAP	A1ZM020851_s_at	endosperm_28DAP	612.8625	73.275
Cytokinin transport	GRMZM2G009344	endosperm_28DAP	A1ZM020953_at	endosperm_28DAP	151.4125	3.175
Cytokinin signaling	GRMZM2G179024	endosperm_28DAP	A1ZM021522_at	endosperm_28DAP	644.075	49.05
Cytokinin signaling	GRMZM2G125943	endosperm_28DAP	A1ZM022701_at	endosperm_28DAP	124.35	6.6
Cytokinin signaling	GRMZM2G005732	endosperm_28DAP	A1ZM022780_a_at	endosperm_28DAP	91.9125	5.425
Cytokinin signaling	GRMZM2G005732	endosperm_28DAP	A1ZM022780_at	endosperm_28DAP	161.2125	2.175
Cytokinin signaling	GRMZM2G005732	endosperm_28DAP	A1ZM022791_at	endosperm_28DAP	261.1125	8.075
Cytokinin signaling	GRMZM2G155767	endosperm_28DAP	A1ZM023285_a_at	endosperm_28DAP	747.9125	84.675
Cytokinin signaling	GRMZM2G155767	endosperm_28DAP	A1ZM023285_x_at	endosperm_28DAP	521.825	56.8
Cytokinin signaling	GRMZM2G471529	endosperm_28DAP	A1ZM023515_at	endosperm_28DAP	644.85	18.25
Cytokinin signaling	GRMZM2G177220	endosperm_28DAP	A1ZM023797_s_at	endosperm_28DAP	134.3	3.5
Cytokinin transport	GRMZM2G416625	endosperm_28DAP	A1ZM024002_x_at	endosperm_28DAP	798.65	17.75
Cytokinin signaling	GRMZM2G156019	endosperm_28DAP	A1ZM025109_at	endosperm_28DAP	167.9125	5.975
Cytokinin signaling	GRMZM2G409974	endosperm_28DAP	A1ZM025193_at	endosperm_28DAP	525.1875	43.225
Cytokinin signaling	GRMZM2G040736	endosperm_28DAP	A1ZM025238_x_at	endosperm_28DAP	1047.125	22.1
Cytokinin degradation	GRMZM2G178209	endosperm_28DAP	A1ZM026067_at	endosperm_28DAP	177.7875	5.725
Cytokinin degradation	GRMZM2G178209	endosperm_28DAP	A1ZM026519_at	endosperm_28DAP	768.3	27.5
Cytokinin signaling	GRMZM2G013612	endosperm_28DAP	A1ZM027161_at	endosperm_28DAP	129.1	13.3

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G013612	endosperm_28DAP	A1ZM027162_at	endosperm_28DAP	110.9	5.4
Cytokinin biosynthesis	GRMZM2G102915	endosperm_28DAP	A1ZM028114_at	endosperm_28DAP	148	1.35
Cytokinin degradation	GRMZM2G159404	endosperm_28DAP	A1ZM028351_at	endosperm_28DAP	358.8875	22.775
Cytokinin signaling	GRMZM2G155767	endosperm_28DAP	A1ZM029562_at	endosperm_28DAP	246.4125	27.225
Cytokinin biosynthesis	GRMZM2G022904	endosperm_28DAP	A1ZM029706_at	endosperm_28DAP	200.2875	1.725
Cytokinin biosynthesis	GRMZM2G436770	endosperm_28DAP	A1ZM029930_at	endosperm_28DAP	192.875	10.15
Cytokinin biosynthesis	GRMZM2G022904	endosperm_28DAP	A1ZM030286_at	endosperm_28DAP	898.325	56.6
Cytokinin signaling	GRMZM2G360523	endosperm_28DAP	A1ZM030383_at	endosperm_28DAP	95.575	2.65
Cytokinin biosynthesis	GRMZM2G076936	endosperm_28DAP	A1ZM030442_at	endosperm_28DAP	249.675	5.45
Cytokinin degradation	GRMZM2G178209	endosperm_28DAP	A1ZM030523_at	endosperm_28DAP	314.0625	5.925
Cytokinin biosynthesis	GRMZM2G104559	endosperm_28DAP	A1ZM030717_at	endosperm_28DAP	234.0125	4.775
Cytokinin biosynthesis	GRMZM5G852663	endosperm_28DAP	A1ZM031200_at	endosperm_28DAP	287.3625	3.425
Cytokinin biosynthesis	GRMZM2G161158	endosperm_28DAP	A1ZM032620_at	endosperm_28DAP	253.15	4.75
Cytokinin biosynthesis	GRMZM2G022904	endosperm_28DAP	A1ZM032621_at	endosperm_28DAP	188.575	18.7
Cytokinin signaling	GRMZM2G155767	endosperm_28DAP	A1ZM034655_x_at	endosperm_28DAP	376.4	28.1
Cytokinin signaling	GRMZM2G125943	endosperm_28DAP	A1ZM034694_at	endosperm_28DAP	108.725	4.55
Cytokinin signaling	GRMZM2G151223	endosperm_28DAP	A1ZM034695_s_at	endosperm_28DAP	104.8	1.65
Cytokinin biosynthesis	GRMZM2G436770	endosperm_28DAP	A1ZM035136_at	endosperm_28DAP	116.0875	9.225
Cytokinin biosynthesis	GRMZM2G076936	endosperm_28DAP	A1ZM035251_at	endosperm_28DAP	221.45	12.3
Cytokinin transport	GRMZM2G153438	endosperm_28DAP	A1ZM036544_at	endosperm_28DAP	494.475	12.35
Cytokinin biosynthesis	GRMZM5G852663	endosperm_28DAP	A1ZM036719_at	endosperm_28DAP	815.35	23.95
Cytokinin transport	GRMZM2G066923	endosperm_28DAP	A1ZM036929_s_at	endosperm_28DAP	2617.85	416.75
Cytokinin signaling	GRMZM2G360523	endosperm_28DAP	A1ZM037835_at	endosperm_28DAP	219.4875	5.775
Cytokinin signaling	GRMZM2G125943	endosperm_28DAP	A1ZM038574_at	endosperm_28DAP	128.8375	14.775
Cytokinin signaling	GRMZM2G155767	endosperm_28DAP	A1ZM039355_x_at	endosperm_28DAP	383.1375	25.975
Cytokinin biosynthesis	GRMZM2G116878	endosperm_28DAP	A1ZM041074_at	endosperm_28DAP	716.7875	124.775
Cytokinin transport	GRMZM2G153438	endosperm_28DAP	A1ZM041750_at	endosperm_28DAP	432.5375	19.725
Cytokinin signaling	GRMZM2G096171	endosperm_28DAP	A1ZM042484_at	endosperm_28DAP	169.65	3.05
Cytokinin biosynthesis	AC210013.4_FGT005	endosperm_28DAP	A1ZM051418_x_at	endosperm_28DAP	216.9375	6.025
Cytokinin degradation	GRMZM2G159404	endosperm_28DAP	A1ZM054142_at	endosperm_28DAP	117.6625	4.525
Cytokinin signaling	GRMZM2G096171	endosperm_28DAP	A1ZM054605_at	endosperm_28DAP	420.25	11.1
Cytokinin signaling	GRMZM2G095727	endosperm_28DAP	A1ZM054606_a_at	endosperm_28DAP	984.4875	238.725
Cytokinin signaling	GRMZM2G177220	endosperm_28DAP	A1ZM054608_a_at	endosperm_28DAP	619.7125	76.125
Cytokinin signaling	GRMZM2G156019	endosperm_28DAP	A1ZM054609_at	endosperm_28DAP	1299.5	243.3
Cytokinin signaling	GRMZM2G179827	endosperm_28DAP	A1ZM054610_at	endosperm_28DAP	203.75	8.1
Cytokinin signaling	GRMZM2G129954	endosperm_28DAP	A1ZM054611_at	endosperm_28DAP	253.825	22.65
Cytokinin signaling	GRMZM2G392101	endosperm_28DAP	A1ZM054612_at	endosperm_28DAP	781.3375	34.675

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G039246	endosperm_28DAP	A1ZM054872_at	endosperm_28DAP	111.45	2.95
Cytokinin signaling	GRMZM2G173710	endosperm_28DAP	A1ZM054873_at	endosperm_28DAP	97.7125	1.975
Cytokinin signaling	GRMZM2G173710	endosperm_28DAP	A1ZM054873_s_at	endosperm_28DAP	110.65	7.3
Cytokinin transport	GRMZM2G009344	endosperm_28DAP	A1ZM054876_at	endosperm_28DAP	164.5125	27.075
Cytokinin signaling	GRMZM2G151223	endosperm_28DAP	A1ZM055183_a_at	endosperm_28DAP	149.45	4.35
Cytokinin signaling	GRMZM2G479110	endosperm_28DAP	A1ZM055354_at	endosperm_28DAP	991.7625	50.375
Cytokinin biosynthesis	GRMZM2G138750	endosperm_28DAP	A1ZM055786_at	endosperm_28DAP	318.9	13
Cytokinin biosynthesis	GRMZM2G459563	endosperm_28DAP	A1ZM055787_at	endosperm_28DAP	331.5125	13.775
Cytokinin degradation	GRMZM2G338465	endosperm_28DAP	A1ZM055814_at	endosperm_28DAP	89.5375	0.575
Cytokinin signaling	GRMZM2G099797	endosperm_28DAP	A1ZM056039_at	endosperm_28DAP	1957.488	27.375
Cytokinin signaling	GRMZM2G099797	endosperm_28DAP	A1ZM056039_x_at	endosperm_28DAP	2042.45	58
Cytokinin signaling	GRMZM2G099797	endosperm_28DAP	A1ZM056078_at	endosperm_28DAP	1225.55	9.8
Cytokinin transport	GRMZM2G002391	endosperm_28DAP	A1ZM056320_at	endosperm_28DAP	2555.588	395.675
Cytokinin transport	GRMZM2G066923	endosperm_28DAP	A1ZM056353_a_at	endosperm_28DAP	6599.35	403.15
Cytokinin signaling	GRMZM2G039246	endosperm_28DAP	A1ZM059893_at	endosperm_28DAP	94.3	5.45
Cytokinin signaling	GRMZM2G471529	endosperm_28DAP	A1ZM060982_at	endosperm_28DAP	187.6	7.9
Cytokinin signaling	GRMZM2G360523	endosperm_28DAP	A1ZM061145_at	endosperm_28DAP	267.5	3.2
Cytokinin signaling	GRMZM2G179024	endosperm_28DAP	A1ZM062048_at	endosperm_28DAP	80.1125	4.825
Cytokinin signaling	GRMZM2G177220	endosperm_28DAP	A1ZM064845_s_at	endosperm_28DAP	339.1125	14.175
Cytokinin transport	GRMZM2G009344	endosperm_28DAP	A1ZM065250_s_at	endosperm_28DAP	3015.188	65.975
Cytokinin transport	GRMZM2G389285	endosperm_28DAP	A1ZM072064_at	endosperm_28DAP	757.2375	58.525
Cytokinin transport	GRMZM2G389285	endosperm_28DAP	A1ZM072065_at	endosperm_28DAP	222.8125	25.525
Cytokinin signaling	GRMZM2G014154	endosperm_28DAP	A1ZM072781_at	endosperm_28DAP	101.7625	3.175
Cytokinin signaling	GRMZM2G129954	endosperm_28DAP	A1ZM074600_at	endosperm_28DAP	136.5	8
Cytokinin transport	GRMZM2G066923	endosperm_28DAP	A1ZM076470_a_at	endosperm_28DAP	4556	218.6
Cytokinin signaling	GRMZM2G151223	endosperm_28DAP	A1ZM077656_at	endosperm_28DAP	1217.388	31.925
Cytokinin signaling	GRMZM2G155767	endosperm_28DAP	A1ZM083176_at	endosperm_28DAP	107.125	1.1
Cytokinin degradation	GRMZM2G168474	endosperm_40DAP	A1ZM000065_at	endosperm_40DAP	2923.725	881
Cytokinin signaling	GRMZM2G016439	endosperm_40DAP	A1ZM000436_at	endosperm_40DAP	1192.813	584.85
Cytokinin signaling	GRMZM2G020081	endosperm_40DAP	A1ZM005041_at	endosperm_40DAP	192.25	0.8
Cytokinin biosynthesis	GRMZM2G129860	endosperm_40DAP	A1ZM005050_at	endosperm_40DAP	350.5	55.8
Cytokinin signaling	GRMZM2G471529	endosperm_40DAP	A1ZM005128_at	endosperm_40DAP	120.025	6.5
Cytokinin signaling	GRMZM2G155767	endosperm_40DAP	A1ZM006236_a_at	endosperm_40DAP	354.7125	34.05
Cytokinin signaling	GRMZM2G155767	endosperm_40DAP	A1ZM006928_a_at	endosperm_40DAP	688.6	30.6
Cytokinin signaling	GRMZM2G155767	endosperm_40DAP	A1ZM006928_x_at	endosperm_40DAP	471.65	15.8
Cytokinin biosynthesis	GRMZM2G459563	endosperm_40DAP	A1ZM008285_at	endosperm_40DAP	171.1125	5.65
Cytokinin signaling	GRMZM2G099797	endosperm_40DAP	A1ZM009127_s_at	endosperm_40DAP	173.8125	10.65

Supplemental Table S4. Contd.

Cytokinin degradation	GRMZM2G086925	endosperm_40DAP	A1ZM009389_at	endosperm_40DAP	142.6	9.6
Cytokinin degradation	GRMZM2G120016	endosperm_40DAP	A1ZM009692_at	endosperm_40DAP	251.1125	4.15
Cytokinin degradation	GRMZM2G058314	endosperm_40DAP	A1ZM009786_at	endosperm_40DAP	126.725	2
Cytokinin signaling	GRMZM2G014154	endosperm_40DAP	A1ZM010384_a_at	endosperm_40DAP	4006.375	1099.2
Cytokinin transport	GRMZM2G416625	endosperm_40DAP	A1ZM012937_at	endosperm_40DAP	2494.825	644.2
Cytokinin biosynthesis	GRMZM2G097258	endosperm_40DAP	A1ZM013917_s_at	endosperm_40DAP	267.2125	23.15
Cytokinin transport	GRMZM2G146337	endosperm_40DAP	A1ZM015143_at	endosperm_40DAP	1408.55	440.1
Cytokinin transport	GRMZM2G066923	endosperm_40DAP	A1ZM016719_at	endosperm_40DAP	81.85	1
Cytokinin signaling	GRMZM2G016145	endosperm_40DAP	A1ZM016721_a_at	endosperm_40DAP	133.2875	9.35
Cytokinin signaling	GRMZM2G040736	endosperm_40DAP	A1ZM019912_x_at	endosperm_40DAP	533.3	12.6
Cytokinin degradation	GRMZM2G043295	endosperm_40DAP	A1ZM020181_at	endosperm_40DAP	390.9875	149.75
Cytokinin signaling	GRMZM2G016439	endosperm_40DAP	A1ZM020851_a_at	endosperm_40DAP	242.25	5.2
Cytokinin signaling	GRMZM2G016439	endosperm_40DAP	A1ZM020851_s_at	endosperm_40DAP	771.3125	218.95
Cytokinin transport	GRMZM2G009344	endosperm_40DAP	A1ZM020953_at	endosperm_40DAP	212.6875	25.05
Cytokinin signaling	GRMZM2G179024	endosperm_40DAP	A1ZM021522_at	endosperm_40DAP	485.55	129.2
Cytokinin signaling	GRMZM2G125943	endosperm_40DAP	A1ZM022701_at	endosperm_40DAP	131.5125	15.15
Cytokinin signaling	GRMZM2G005732	endosperm_40DAP	A1ZM022780_a_at	endosperm_40DAP	128.1125	11.55
Cytokinin signaling	GRMZM2G005732	endosperm_40DAP	A1ZM022780_at	endosperm_40DAP	149.1125	2.25
Cytokinin signaling	GRMZM2G005732	endosperm_40DAP	A1ZM022791_at	endosperm_40DAP	319.8875	0.65
Cytokinin signaling	GRMZM2G155767	endosperm_40DAP	A1ZM023285_a_at	endosperm_40DAP	461.1625	11.45
Cytokinin signaling	GRMZM2G155767	endosperm_40DAP	A1ZM023285_x_at	endosperm_40DAP	575.675	1.4
Cytokinin signaling	GRMZM2G471529	endosperm_40DAP	A1ZM023515_at	endosperm_40DAP	661.2875	26.45
Cytokinin signaling	GRMZM2G177220	endosperm_40DAP	A1ZM023797_s_at	endosperm_40DAP	138	3.5
Cytokinin transport	GRMZM2G416625	endosperm_40DAP	A1ZM024002_x_at	endosperm_40DAP	1067.925	196.2
Cytokinin signaling	GRMZM2G156019	endosperm_40DAP	A1ZM025109_at	endosperm_40DAP	217.4625	16.35
Cytokinin signaling	GRMZM2G409974	endosperm_40DAP	A1ZM025193_at	endosperm_40DAP	338.975	49.7
Cytokinin signaling	GRMZM2G040736	endosperm_40DAP	A1ZM025238_x_at	endosperm_40DAP	554.5125	134.45
Cytokinin degradation	GRMZM2G178209	endosperm_40DAP	A1ZM026067_at	endosperm_40DAP	144.7	8
Cytokinin degradation	GRMZM2G178209	endosperm_40DAP	A1ZM026519_at	endosperm_40DAP	733.4125	18.15
Cytokinin signaling	GRMZM2G013612	endosperm_40DAP	A1ZM027161_at	endosperm_40DAP	133.9125	6.85
Cytokinin signaling	GRMZM2G013612	endosperm_40DAP	A1ZM027162_at	endosperm_40DAP	117.7875	15.25
Cytokinin biosynthesis	GRMZM2G102915	endosperm_40DAP	A1ZM028114_at	endosperm_40DAP	142.0625	1.25
Cytokinin degradation	GRMZM2G159404	endosperm_40DAP	A1ZM028351_at	endosperm_40DAP	387.5125	48.75
Cytokinin signaling	GRMZM2G155767	endosperm_40DAP	A1ZM029562_at	endosperm_40DAP	233.2125	1.45
Cytokinin biosynthesis	GRMZM2G022904	endosperm_40DAP	A1ZM029706_at	endosperm_40DAP	254.0125	16.95
Cytokinin biosynthesis	GRMZM2G436770	endosperm_40DAP	A1ZM029930_at	endosperm_40DAP	274.95	51
Cytokinin biosynthesis	GRMZM2G022904	endosperm_40DAP	A1ZM030286_at	endosperm_40DAP	1253.813	162.05

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G360523	endosperm_40DAP	A1ZM030383_at	endosperm_40DAP	103.325	4.5
Cytokinin biosynthesis	GRMZM2G076936	endosperm_40DAP	A1ZM030442_at	endosperm_40DAP	243.4125	23.65
Cytokinin degradation	GRMZM2G178209	endosperm_40DAP	A1ZM030523_at	endosperm_40DAP	430.95	22.7
Cytokinin biosynthesis	GRMZM2G104559	endosperm_40DAP	A1ZM030717_at	endosperm_40DAP	216.45	7.5
Cytokinin biosynthesis	GRMZM5G852663	endosperm_40DAP	A1ZM031200_at	endosperm_40DAP	429.6125	87.25
Cytokinin biosynthesis	GRMZM2G161158	endosperm_40DAP	A1ZM032620_at	endosperm_40DAP	249.325	6.8
Cytokinin biosynthesis	GRMZM2G022904	endosperm_40DAP	A1ZM032621_at	endosperm_40DAP	194.825	8.7
Cytokinin signaling	GRMZM2G155767	endosperm_40DAP	A1ZM034655_x_at	endosperm_40DAP	399.5625	21.75
Cytokinin signaling	GRMZM2G125943	endosperm_40DAP	A1ZM034694_at	endosperm_40DAP	117.8625	8.05
Cytokinin signaling	GRMZM2G151223	endosperm_40DAP	A1ZM034695_s_at	endosperm_40DAP	92.425	0.7
Cytokinin biosynthesis	GRMZM2G436770	endosperm_40DAP	A1ZM035136_at	endosperm_40DAP	131.575	11.6
Cytokinin biosynthesis	GRMZM2G076936	endosperm_40DAP	A1ZM035251_at	endosperm_40DAP	361.8625	10.65
Cytokinin transport	GRMZM2G153438	endosperm_40DAP	A1ZM036544_at	endosperm_40DAP	575.8125	74.85
Cytokinin biosynthesis	GRMZM5G852663	endosperm_40DAP	A1ZM036719_at	endosperm_40DAP	1177.65	136
Cytokinin transport	GRMZM2G066923	endosperm_40DAP	A1ZM036929_s_at	endosperm_40DAP	1230.575	147
Cytokinin signaling	GRMZM2G360523	endosperm_40DAP	A1ZM037835_at	endosperm_40DAP	177.15	1.4
Cytokinin signaling	GRMZM2G125943	endosperm_40DAP	A1ZM038574_at	endosperm_40DAP	122.7875	5.45
Cytokinin signaling	GRMZM2G155767	endosperm_40DAP	A1ZM039355_x_at	endosperm_40DAP	302.275	16.2
Cytokinin biosynthesis	GRMZM2G116878	endosperm_40DAP	A1ZM041074_at	endosperm_40DAP	753.0125	72.95
Cytokinin transport	GRMZM2G153438	endosperm_40DAP	A1ZM041750_at	endosperm_40DAP	512.45	15.3
Cytokinin signaling	GRMZM2G096171	endosperm_40DAP	A1ZM042484_at	endosperm_40DAP	211.4625	34.85
Cytokinin biosynthesis	AC210013.4_FGT005	endosperm_40DAP	A1ZM051418_x_at	endosperm_40DAP	244.3	19.7
Cytokinin degradation	GRMZM2G159404	endosperm_40DAP	A1ZM054142_at	endosperm_40DAP	137.9375	4.35
Cytokinin signaling	GRMZM2G096171	endosperm_40DAP	A1ZM054605_at	endosperm_40DAP	427.7375	88.65
Cytokinin signaling	GRMZM2G095727	endosperm_40DAP	A1ZM054606_a_at	endosperm_40DAP	608.425	54
Cytokinin signaling	GRMZM2G177220	endosperm_40DAP	A1ZM054608_a_at	endosperm_40DAP	549.1625	65.75
Cytokinin signaling	GRMZM2G156019	endosperm_40DAP	A1ZM054609_at	endosperm_40DAP	1139.663	0.35
Cytokinin signaling	GRMZM2G179827	endosperm_40DAP	A1ZM054610_at	endosperm_40DAP	220.2375	11.75
Cytokinin signaling	GRMZM2G129954	endosperm_40DAP	A1ZM054611_at	endosperm_40DAP	297.5	13.5
Cytokinin signaling	GRMZM2G392101	endosperm_40DAP	A1ZM054612_at	endosperm_40DAP	643.15	182.6
Cytokinin signaling	GRMZM2G039246	endosperm_40DAP	A1ZM054872_at	endosperm_40DAP	101.45	12
Cytokinin signaling	GRMZM2G173710	endosperm_40DAP	A1ZM054873_at	endosperm_40DAP	98.175	3.2
Cytokinin signaling	GRMZM2G173710	endosperm_40DAP	A1ZM054873_s_at	endosperm_40DAP	98.3125	12.05
Cytokinin transport	GRMZM2G009344	endosperm_40DAP	A1ZM054876_at	endosperm_40DAP	558.8375	81.65
Cytokinin signaling	GRMZM2G151223	endosperm_40DAP	A1ZM055183_a_at	endosperm_40DAP	157.6625	27.45
Cytokinin signaling	GRMZM2G479110	endosperm_40DAP	A1ZM055354_at	endosperm_40DAP	1061.175	23.7
Cytokinin biosynthesis	GRMZM2G138750	endosperm_40DAP	A1ZM055786_at	endosperm_40DAP	365.25	27.9

Supplemental Table S4. Contd.

Cytokinin biosynthesis	GRMZM2G459563	endosperm_40DAP	A1ZM055787_at	endosperm_40DAP	372.725	35.7
Cytokinin degradation	GRMZM2G338465	endosperm_40DAP	A1ZM055814_at	endosperm_40DAP	149.3375	19.65
Cytokinin signaling	GRMZM2G099797	endosperm_40DAP	A1ZM056039_at	endosperm_40DAP	1350.8	31.3
Cytokinin signaling	GRMZM2G099797	endosperm_40DAP	A1ZM056039_x_at	endosperm_40DAP	1422.338	152.95
Cytokinin signaling	GRMZM2G099797	endosperm_40DAP	A1ZM056078_at	endosperm_40DAP	1023.138	164.95
Cytokinin transport	GRMZM2G002391	endosperm_40DAP	A1ZM056320_at	endosperm_40DAP	1963.688	122.55
Cytokinin transport	GRMZM2G066923	endosperm_40DAP	A1ZM056353_a_at	endosperm_40DAP	4638.813	992.65
Cytokinin signaling	GRMZM2G039246	endosperm_40DAP	A1ZM059893_at	endosperm_40DAP	84.7375	1.45
Cytokinin signaling	GRMZM2G471529	endosperm_40DAP	A1ZM060982_at	endosperm_40DAP	258.625	27.5
Cytokinin signaling	GRMZM2G360523	endosperm_40DAP	A1ZM061145_at	endosperm_40DAP	205.925	2.5
Cytokinin signaling	GRMZM2G179024	endosperm_40DAP	A1ZM062048_at	endosperm_40DAP	80.3625	0.85
Cytokinin signaling	GRMZM2G177220	endosperm_40DAP	A1ZM064845_s_at	endosperm_40DAP	280.925	37
Cytokinin transport	GRMZM2G009344	endosperm_40DAP	A1ZM065250_s_at	endosperm_40DAP	12322.44	4170.75
Cytokinin transport	GRMZM2G389285	endosperm_40DAP	A1ZM072064_at	endosperm_40DAP	961.65	125.2
Cytokinin transport	GRMZM2G389285	endosperm_40DAP	A1ZM072065_at	endosperm_40DAP	173.95	12.9
Cytokinin signaling	GRMZM2G014154	endosperm_40DAP	A1ZM072781_at	endosperm_40DAP	112.95	16.2
Cytokinin signaling	GRMZM2G129954	endosperm_40DAP	A1ZM074600_at	endosperm_40DAP	156.6875	6.75
Cytokinin transport	GRMZM2G066923	endosperm_40DAP	A1ZM076470_a_at	endosperm_40DAP	3225	585.6
Cytokinin signaling	GRMZM2G151223	endosperm_40DAP	A1ZM077656_at	endosperm_40DAP	739.375	142
Cytokinin signaling	GRMZM2G155767	endosperm_40DAP	A1ZM083176_at	endosperm_40DAP	126.65	6.9
Cytokinin degradation	GRMZM2G168474	kernel_2DAP	A1ZM000065_at	kernel_2DAP	206.65	1.3
Cytokinin signaling	GRMZM2G016439	kernel_2DAP	A1ZM000436_at	kernel_2DAP	8038.488	675.425
Cytokinin signaling	GRMZM2G020081	kernel_2DAP	A1ZM005041_at	kernel_2DAP	219.875	1.25
Cytokinin biosynthesis	GRMZM2G129860	kernel_2DAP	A1ZM005050_at	kernel_2DAP	93.5	3.75
Cytokinin signaling	GRMZM2G471529	kernel_2DAP	A1ZM005128_at	kernel_2DAP	184.5625	5.825
Cytokinin signaling	GRMZM2G155767	kernel_2DAP	A1ZM006236_a_at	kernel_2DAP	468.0375	14.175
Cytokinin signaling	GRMZM2G155767	kernel_2DAP	A1ZM006928_a_at	kernel_2DAP	1162.863	44.875
Cytokinin signaling	GRMZM2G155767	kernel_2DAP	A1ZM006928_x_at	kernel_2DAP	915.8375	48.125
Cytokinin biosynthesis	GRMZM2G459563	kernel_2DAP	A1ZM008285_at	kernel_2DAP	158.525	3.3
Cytokinin signaling	GRMZM2G099797	kernel_2DAP	A1ZM009127_s_at	kernel_2DAP	298.15	6.7
Cytokinin degradation	GRMZM2G086925	kernel_2DAP	A1ZM009389_at	kernel_2DAP	160.925	5.85
Cytokinin degradation	GRMZM2G120016	kernel_2DAP	A1ZM009692_at	kernel_2DAP	175.7875	8.325
Cytokinin degradation	GRMZM2G058314	kernel_2DAP	A1ZM009786_at	kernel_2DAP	181.5625	17.675
Cytokinin signaling	GRMZM2G014154	kernel_2DAP	A1ZM010384_a_at	kernel_2DAP	7747.138	467.975
Cytokinin transport	GRMZM2G416625	kernel_2DAP	A1ZM012937_at	kernel_2DAP	1815.175	89.4
Cytokinin biosynthesis	GRMZM2G097258	kernel_2DAP	A1ZM013917_s_at	kernel_2DAP	226.275	10.15
Cytokinin transport	GRMZM2G146337	kernel_2DAP	A1ZM015143_at	kernel_2DAP	322.1875	9.225

Supplemental Table S4. Contd.

Cytokinin transport	GRMZM2G066923	kernel_2DAP	A1ZM016719_at	kernel_2DAP	64.4875	0.325
Cytokinin signaling	GRMZM2G016145	kernel_2DAP	A1ZM016721_a_at	kernel_2DAP	88.1375	3.225
Cytokinin signaling	GRMZM2G040736	kernel_2DAP	A1ZM019912_x_at	kernel_2DAP	733.2875	22.275
Cytokinin degradation	GRMZM2G043295	kernel_2DAP	A1ZM020181_at	kernel_2DAP	767.975	43.9
Cytokinin signaling	GRMZM2G016439	kernel_2DAP	A1ZM020851_a_at	kernel_2DAP	1172.025	124.45
Cytokinin signaling	GRMZM2G016439	kernel_2DAP	A1ZM020851_s_at	kernel_2DAP	3504.388	44.975
Cytokinin transport	GRMZM2G009344	kernel_2DAP	A1ZM020953_at	kernel_2DAP	117.55	7.7
Cytokinin signaling	GRMZM2G179024	kernel_2DAP	A1ZM021522_at	kernel_2DAP	673.3375	27.175
Cytokinin signaling	GRMZM2G125943	kernel_2DAP	A1ZM022701_at	kernel_2DAP	129.5125	2.125
Cytokinin signaling	GRMZM2G005732	kernel_2DAP	A1ZM022780_a_at	kernel_2DAP	125.475	17.05
Cytokinin signaling	GRMZM2G005732	kernel_2DAP	A1ZM022780_at	kernel_2DAP	184.75	2.3
Cytokinin signaling	GRMZM2G005732	kernel_2DAP	A1ZM022791_at	kernel_2DAP	250.275	3.75
Cytokinin signaling	GRMZM2G155767	kernel_2DAP	A1ZM023285_a_at	kernel_2DAP	1306.2	34.2
Cytokinin signaling	GRMZM2G155767	kernel_2DAP	A1ZM023285_x_at	kernel_2DAP	1066.938	20.125
Cytokinin signaling	GRMZM2G471529	kernel_2DAP	A1ZM023515_at	kernel_2DAP	660.0375	46.175
Cytokinin signaling	GRMZM2G177220	kernel_2DAP	A1ZM023797_s_at	kernel_2DAP	130.6375	5.425
Cytokinin transport	GRMZM2G416625	kernel_2DAP	A1ZM024002_x_at	kernel_2DAP	742.7	23.9
Cytokinin signaling	GRMZM2G156019	kernel_2DAP	A1ZM025109_at	kernel_2DAP	139.75	8.05
Cytokinin signaling	GRMZM2G409974	kernel_2DAP	A1ZM025193_at	kernel_2DAP	1284.388	17.975
Cytokinin signaling	GRMZM2G040736	kernel_2DAP	A1ZM025238_x_at	kernel_2DAP	661.0625	23.375
Cytokinin degradation	GRMZM2G178209	kernel_2DAP	A1ZM026067_at	kernel_2DAP	132.5	5.15
Cytokinin degradation	GRMZM2G178209	kernel_2DAP	A1ZM026519_at	kernel_2DAP	450.05	3.9
Cytokinin signaling	GRMZM2G013612	kernel_2DAP	A1ZM027161_at	kernel_2DAP	82.5	2.15
Cytokinin signaling	GRMZM2G013612	kernel_2DAP	A1ZM027162_at	kernel_2DAP	83.125	1.15
Cytokinin biosynthesis	GRMZM2G102915	kernel_2DAP	A1ZM028114_at	kernel_2DAP	119.15	1.75
Cytokinin degradation	GRMZM2G159404	kernel_2DAP	A1ZM028351_at	kernel_2DAP	267.775	8
Cytokinin signaling	GRMZM2G155767	kernel_2DAP	A1ZM029562_at	kernel_2DAP	216.625	5
Cytokinin biosynthesis	GRMZM2G022904	kernel_2DAP	A1ZM029706_at	kernel_2DAP	208.75	5.75
Cytokinin biosynthesis	GRMZM2G436770	kernel_2DAP	A1ZM029930_at	kernel_2DAP	178.775	2.75
Cytokinin biosynthesis	GRMZM2G022904	kernel_2DAP	A1ZM030286_at	kernel_2DAP	827.3125	21.925
Cytokinin signaling	GRMZM2G360523	kernel_2DAP	A1ZM030383_at	kernel_2DAP	88.1875	3.375
Cytokinin biosynthesis	GRMZM2G076936	kernel_2DAP	A1ZM030442_at	kernel_2DAP	146.6625	10.925
Cytokinin degradation	GRMZM2G178209	kernel_2DAP	A1ZM030523_at	kernel_2DAP	202.9125	3.975
Cytokinin biosynthesis	GRMZM2G104559	kernel_2DAP	A1ZM030717_at	kernel_2DAP	163.4875	4.925
Cytokinin biosynthesis	GRMZM5G852663	kernel_2DAP	A1ZM031200_at	kernel_2DAP	200.5625	4.025
Cytokinin biosynthesis	GRMZM2G161158	kernel_2DAP	A1ZM032620_at	kernel_2DAP	200.3125	6.575
Cytokinin biosynthesis	GRMZM2G022904	kernel_2DAP	A1ZM032621_at	kernel_2DAP	145.5625	8.025

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G155767	kernel_2DAP	A1ZM034655_x_at	kernel_2DAP	325.625	6.4
Cytokinin signaling	GRMZM2G125943	kernel_2DAP	A1ZM034694_at	kernel_2DAP	81.3375	2.525
Cytokinin signaling	GRMZM2G151223	kernel_2DAP	A1ZM034695_s_at	kernel_2DAP	130.725	15.45
Cytokinin biosynthesis	GRMZM2G436770	kernel_2DAP	A1ZM035136_at	kernel_2DAP	74.7	2.1
Cytokinin biosynthesis	GRMZM2G076936	kernel_2DAP	A1ZM035251_at	kernel_2DAP	209.5375	7.325
Cytokinin transport	GRMZM2G153438	kernel_2DAP	A1ZM036544_at	kernel_2DAP	362.25	5.4
Cytokinin biosynthesis	GRMZM5G852663	kernel_2DAP	A1ZM036719_at	kernel_2DAP	587.95	4.15
Cytokinin transport	GRMZM2G066923	kernel_2DAP	A1ZM036929_s_at	kernel_2DAP	322.2625	20.025
Cytokinin signaling	GRMZM2G360523	kernel_2DAP	A1ZM037835_at	kernel_2DAP	245.1625	11.725
Cytokinin signaling	GRMZM2G125943	kernel_2DAP	A1ZM038574_at	kernel_2DAP	114.5125	3.075
Cytokinin signaling	GRMZM2G155767	kernel_2DAP	A1ZM039355_x_at	kernel_2DAP	304.3375	11.525
Cytokinin biosynthesis	GRMZM2G116878	kernel_2DAP	A1ZM041074_at	kernel_2DAP	544.75	12.5
Cytokinin transport	GRMZM2G153438	kernel_2DAP	A1ZM041750_at	kernel_2DAP	361.1625	28.475
Cytokinin signaling	GRMZM2G096171	kernel_2DAP	A1ZM042484_at	kernel_2DAP	123.6125	0.525
Cytokinin biosynthesis	AC210013.4_FGT005	kernel_2DAP	A1ZM051418_x_at	kernel_2DAP	164.625	8.9
Cytokinin degradation	GRMZM2G159404	kernel_2DAP	A1ZM054142_at	kernel_2DAP	90.0625	0.325
Cytokinin signaling	GRMZM2G096171	kernel_2DAP	A1ZM054605_at	kernel_2DAP	844.0125	9.625
Cytokinin signaling	GRMZM2G095727	kernel_2DAP	A1ZM054606_a_at	kernel_2DAP	2066.85	122.5
Cytokinin signaling	GRMZM2G177220	kernel_2DAP	A1ZM054608_a_at	kernel_2DAP	858.4125	39.475
Cytokinin signaling	GRMZM2G156019	kernel_2DAP	A1ZM054609_at	kernel_2DAP	2383.963	31.375
Cytokinin signaling	GRMZM2G179827	kernel_2DAP	A1ZM054610_at	kernel_2DAP	368.25	7.65
Cytokinin signaling	GRMZM2G129954	kernel_2DAP	A1ZM054611_at	kernel_2DAP	659.125	12.25
Cytokinin signaling	GRMZM2G392101	kernel_2DAP	A1ZM054612_at	kernel_2DAP	1357.338	72.325
Cytokinin signaling	GRMZM2G039246	kernel_2DAP	A1ZM054872_at	kernel_2DAP	85.5875	2.875
Cytokinin signaling	GRMZM2G173710	kernel_2DAP	A1ZM054873_at	kernel_2DAP	89.35	8.1
Cytokinin signaling	GRMZM2G173710	kernel_2DAP	A1ZM054873_s_at	kernel_2DAP	68.275	1.85
Cytokinin transport	GRMZM2G009344	kernel_2DAP	A1ZM054876_at	kernel_2DAP	320.9	47.55
Cytokinin signaling	GRMZM2G151223	kernel_2DAP	A1ZM055183_a_at	kernel_2DAP	361.3	10.35
Cytokinin signaling	GRMZM2G479110	kernel_2DAP	A1ZM055354_at	kernel_2DAP	1645.888	49.075
Cytokinin biosynthesis	GRMZM2G138750	kernel_2DAP	A1ZM055786_at	kernel_2DAP	449.2375	3.425
Cytokinin biosynthesis	GRMZM2G459563	kernel_2DAP	A1ZM055787_at	kernel_2DAP	317.35	21.45
Cytokinin degradation	GRMZM2G338465	kernel_2DAP	A1ZM055814_at	kernel_2DAP	83.4125	2.025
Cytokinin signaling	GRMZM2G099797	kernel_2DAP	A1ZM056039_at	kernel_2DAP	889.5875	13.975
Cytokinin signaling	GRMZM2G099797	kernel_2DAP	A1ZM056039_x_at	kernel_2DAP	973.625	9.6
Cytokinin signaling	GRMZM2G099797	kernel_2DAP	A1ZM056078_at	kernel_2DAP	454.5	13.85
Cytokinin transport	GRMZM2G002391	kernel_2DAP	A1ZM056320_at	kernel_2DAP	5866.925	291.25
Cytokinin transport	GRMZM2G066923	kernel_2DAP	A1ZM056353_a_at	kernel_2DAP	656.2375	68.675

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G039246	kernel_2DAP	A1ZM059893_at	kernel_2DAP	69.2625	3.575
Cytokinin signaling	GRMZM2G471529	kernel_2DAP	A1ZM060982_at	kernel_2DAP	141.0375	3.475
Cytokinin signaling	GRMZM2G360523	kernel_2DAP	A1ZM061145_at	kernel_2DAP	177.8875	13.025
Cytokinin signaling	GRMZM2G179024	kernel_2DAP	A1ZM062048_at	kernel_2DAP	71.05	2.1
Cytokinin signaling	GRMZM2G177220	kernel_2DAP	A1ZM064845_s_at	kernel_2DAP	198.2375	12.425
Cytokinin transport	GRMZM2G009344	kernel_2DAP	A1ZM065250_s_at	kernel_2DAP	4773.238	223.075
Cytokinin transport	GRMZM2G389285	kernel_2DAP	A1ZM072064_at	kernel_2DAP	566.5125	11.825
Cytokinin transport	GRMZM2G389285	kernel_2DAP	A1ZM072065_at	kernel_2DAP	129.8375	2.225
Cytokinin signaling	GRMZM2G014154	kernel_2DAP	A1ZM072781_at	kernel_2DAP	67.9125	1.575
Cytokinin signaling	GRMZM2G129954	kernel_2DAP	A1ZM074600_at	kernel_2DAP	137.5	4.85
Cytokinin transport	GRMZM2G066923	kernel_2DAP	A1ZM076470_a_at	kernel_2DAP	439.5125	27.675
Cytokinin signaling	GRMZM2G151223	kernel_2DAP	A1ZM077656_at	kernel_2DAP	1964.738	97.225
Cytokinin signaling	GRMZM2G155767	kernel_2DAP	A1ZM083176_at	kernel_2DAP	111.6375	5.075
Cytokinin degradation	GRMZM2G168474	kernel_7DAP	A1ZM000065_at	kernel_7DAP	442.525	236.9
Cytokinin signaling	GRMZM2G016439	kernel_7DAP	A1ZM000436_at	kernel_7DAP	8300.663	274.825
Cytokinin signaling	GRMZM2G020081	kernel_7DAP	A1ZM005041_at	kernel_7DAP	208.7125	11.125
Cytokinin biosynthesis	GRMZM2G129860	kernel_7DAP	A1ZM005050_at	kernel_7DAP	142.7375	20.625
Cytokinin signaling	GRMZM2G471529	kernel_7DAP	A1ZM005128_at	kernel_7DAP	187.9	68.8
Cytokinin signaling	GRMZM2G155767	kernel_7DAP	A1ZM006236_a_at	kernel_7DAP	604.6375	30.675
Cytokinin signaling	GRMZM2G155767	kernel_7DAP	A1ZM006928_a_at	kernel_7DAP	1112.2	96.6
Cytokinin signaling	GRMZM2G155767	kernel_7DAP	A1ZM006928_x_at	kernel_7DAP	857.2875	105.875
Cytokinin biosynthesis	GRMZM2G459563	kernel_7DAP	A1ZM008285_at	kernel_7DAP	137.4	16.2
Cytokinin signaling	GRMZM2G099797	kernel_7DAP	A1ZM009127_s_at	kernel_7DAP	334.875	40.9
Cytokinin degradation	GRMZM2G086925	kernel_7DAP	A1ZM009389_at	kernel_7DAP	162.3625	8.775
Cytokinin degradation	GRMZM2G120016	kernel_7DAP	A1ZM009692_at	kernel_7DAP	176.8375	7.125
Cytokinin degradation	GRMZM2G058314	kernel_7DAP	A1ZM009786_at	kernel_7DAP	162.9375	3.325
Cytokinin signaling	GRMZM2G014154	kernel_7DAP	A1ZM010384_a_at	kernel_7DAP	7442.838	206.825
Cytokinin transport	GRMZM2G416625	kernel_7DAP	A1ZM012937_at	kernel_7DAP	1654.8	123.65
Cytokinin biosynthesis	GRMZM2G097258	kernel_7DAP	A1ZM013917_s_at	kernel_7DAP	273.725	27.5
Cytokinin transport	GRMZM2G146337	kernel_7DAP	A1ZM015143_at	kernel_7DAP	672.625	25.15
Cytokinin transport	GRMZM2G066923	kernel_7DAP	A1ZM016719_at	kernel_7DAP	59.475	2.35
Cytokinin signaling	GRMZM2G016145	kernel_7DAP	A1ZM016721_a_at	kernel_7DAP	2210.688	719.125
Cytokinin signaling	GRMZM2G040736	kernel_7DAP	A1ZM019912_x_at	kernel_7DAP	658.325	61.75
Cytokinin degradation	GRMZM2G043295	kernel_7DAP	A1ZM020181_at	kernel_7DAP	403.4625	62.175
Cytokinin signaling	GRMZM2G016439	kernel_7DAP	A1ZM020851_a_at	kernel_7DAP	1245.15	122.1
Cytokinin signaling	GRMZM2G016439	kernel_7DAP	A1ZM020851_s_at	kernel_7DAP	5168.963	605.675
Cytokinin transport	GRMZM2G009344	kernel_7DAP	A1ZM020953_at	kernel_7DAP	121.575	6.3

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G179024	kernel_7DAP	A1ZM021522_at	kernel_7DAP	1035	58.3
Cytokinin signaling	GRMZM2G125943	kernel_7DAP	A1ZM022701_at	kernel_7DAP	111.7125	7.825
Cytokinin signaling	GRMZM2G005732	kernel_7DAP	A1ZM022780_a_at	kernel_7DAP	91.6125	2.425
Cytokinin signaling	GRMZM2G005732	kernel_7DAP	A1ZM022780_at	kernel_7DAP	154.9	4.55
Cytokinin signaling	GRMZM2G005732	kernel_7DAP	A1ZM022791_at	kernel_7DAP	231.075	8.6
Cytokinin signaling	GRMZM2G155767	kernel_7DAP	A1ZM023285_a_at	kernel_7DAP	1212.488	129.375
Cytokinin signaling	GRMZM2G155767	kernel_7DAP	A1ZM023285_x_at	kernel_7DAP	990.3375	99.275
Cytokinin signaling	GRMZM2G471529	kernel_7DAP	A1ZM023515_at	kernel_7DAP	491.7125	73.125
Cytokinin signaling	GRMZM2G177220	kernel_7DAP	A1ZM023797_s_at	kernel_7DAP	161.1	31.2
Cytokinin transport	GRMZM2G416625	kernel_7DAP	A1ZM024002_x_at	kernel_7DAP	849.925	33.2
Cytokinin signaling	GRMZM2G156019	kernel_7DAP	A1ZM025109_at	kernel_7DAP	141.1625	4.625
Cytokinin signaling	GRMZM2G409974	kernel_7DAP	A1ZM025193_at	kernel_7DAP	921.075	53.45
Cytokinin signaling	GRMZM2G040736	kernel_7DAP	A1ZM025238_x_at	kernel_7DAP	543.325	69.95
Cytokinin degradation	GRMZM2G178209	kernel_7DAP	A1ZM026067_at	kernel_7DAP	145.525	1.65
Cytokinin degradation	GRMZM2G178209	kernel_7DAP	A1ZM026519_at	kernel_7DAP	404.95	36.6
Cytokinin signaling	GRMZM2G013612	kernel_7DAP	A1ZM027161_at	kernel_7DAP	80.3375	4.375
Cytokinin signaling	GRMZM2G013612	kernel_7DAP	A1ZM027162_at	kernel_7DAP	84.1125	4.575
Cytokinin biosynthesis	GRMZM2G102915	kernel_7DAP	A1ZM028114_at	kernel_7DAP	107.85	6.1
Cytokinin degradation	GRMZM2G159404	kernel_7DAP	A1ZM028351_at	kernel_7DAP	273.6125	32.675
Cytokinin signaling	GRMZM2G155767	kernel_7DAP	A1ZM029562_at	kernel_7DAP	210.325	12.85
Cytokinin biosynthesis	GRMZM2G022904	kernel_7DAP	A1ZM029706_at	kernel_7DAP	463.6	61.15
Cytokinin biosynthesis	GRMZM2G436770	kernel_7DAP	A1ZM029930_at	kernel_7DAP	176.9625	8.775
Cytokinin biosynthesis	GRMZM2G022904	kernel_7DAP	A1ZM030286_at	kernel_7DAP	801.9	149.35
Cytokinin signaling	GRMZM2G360523	kernel_7DAP	A1ZM030383_at	kernel_7DAP	97.775	5.55
Cytokinin biosynthesis	GRMZM2G076936	kernel_7DAP	A1ZM030442_at	kernel_7DAP	127.9375	14.175
Cytokinin degradation	GRMZM2G178209	kernel_7DAP	A1ZM030523_at	kernel_7DAP	190.9875	21.775
Cytokinin biosynthesis	GRMZM2G104559	kernel_7DAP	A1ZM030717_at	kernel_7DAP	164.3	16.1
Cytokinin biosynthesis	GRMZM5G852663	kernel_7DAP	A1ZM031200_at	kernel_7DAP	232.6375	23.775
Cytokinin biosynthesis	GRMZM2G161158	kernel_7DAP	A1ZM032620_at	kernel_7DAP	194.825	14
Cytokinin biosynthesis	GRMZM2G022904	kernel_7DAP	A1ZM032621_at	kernel_7DAP	154.675	2.75
Cytokinin signaling	GRMZM2G155767	kernel_7DAP	A1ZM034655_x_at	kernel_7DAP	318.6625	13.225
Cytokinin signaling	GRMZM2G125943	kernel_7DAP	A1ZM034694_at	kernel_7DAP	77.8	7.8
Cytokinin signaling	GRMZM2G151223	kernel_7DAP	A1ZM034695_s_at	kernel_7DAP	116.6875	3.575
Cytokinin biosynthesis	GRMZM2G436770	kernel_7DAP	A1ZM035136_at	kernel_7DAP	76.25	1.55
Cytokinin biosynthesis	GRMZM2G076936	kernel_7DAP	A1ZM035251_at	kernel_7DAP	178.4625	8.425
Cytokinin transport	GRMZM2G153438	kernel_7DAP	A1ZM036544_at	kernel_7DAP	346.3875	36.275
Cytokinin biosynthesis	GRMZM5G852663	kernel_7DAP	A1ZM036719_at	kernel_7DAP	769.525	17.95

Supplemental Table S4. Contd.

Cytokinin transport	GRMZM2G066923	kernel_7DAP	A1ZM036929_s_at	kernel_7DAP	340.6125	29.275
Cytokinin signaling	GRMZM2G360523	kernel_7DAP	A1ZM037835_at	kernel_7DAP	371.9125	21.225
Cytokinin signaling	GRMZM2G125943	kernel_7DAP	A1ZM038574_at	kernel_7DAP	103.1	3.05
Cytokinin signaling	GRMZM2G155767	kernel_7DAP	A1ZM039355_x_at	kernel_7DAP	293.9125	7.975
Cytokinin biosynthesis	GRMZM2G116878	kernel_7DAP	A1ZM041074_at	kernel_7DAP	522.25	28.6
Cytokinin transport	GRMZM2G153438	kernel_7DAP	A1ZM041750_at	kernel_7DAP	323.9375	44.975
Cytokinin signaling	GRMZM2G096171	kernel_7DAP	A1ZM042484_at	kernel_7DAP	119.65	9
Cytokinin biosynthesis	AC210013.4_FGT005	kernel_7DAP	A1ZM051418_x_at	kernel_7DAP	160.95	9.75
Cytokinin degradation	GRMZM2G159404	kernel_7DAP	A1ZM054142_at	kernel_7DAP	90.1625	7.025
Cytokinin signaling	GRMZM2G096171	kernel_7DAP	A1ZM054605_at	kernel_7DAP	500.525	53.75
Cytokinin signaling	GRMZM2G095727	kernel_7DAP	A1ZM054606_a_at	kernel_7DAP	1679.85	20.2
Cytokinin signaling	GRMZM2G177220	kernel_7DAP	A1ZM054608_a_at	kernel_7DAP	1081.4	329.2
Cytokinin signaling	GRMZM2G156019	kernel_7DAP	A1ZM054609_at	kernel_7DAP	2836.163	273.925
Cytokinin signaling	GRMZM2G179827	kernel_7DAP	A1ZM054610_at	kernel_7DAP	314.1125	48.025
Cytokinin signaling	GRMZM2G129954	kernel_7DAP	A1ZM054611_at	kernel_7DAP	659.3125	106.075
Cytokinin signaling	GRMZM2G392101	kernel_7DAP	A1ZM054612_at	kernel_7DAP	998.75	154.2
Cytokinin signaling	GRMZM2G039246	kernel_7DAP	A1ZM054872_at	kernel_7DAP	79.4625	4.175
Cytokinin signaling	GRMZM2G173710	kernel_7DAP	A1ZM054873_at	kernel_7DAP	88.425	1.1
Cytokinin signaling	GRMZM2G173710	kernel_7DAP	A1ZM054873_s_at	kernel_7DAP	68.85	7.95
Cytokinin transport	GRMZM2G009344	kernel_7DAP	A1ZM054876_at	kernel_7DAP	929.05	157.9
Cytokinin signaling	GRMZM2G151223	kernel_7DAP	A1ZM055183_a_at	kernel_7DAP	298.4625	5.975
Cytokinin signaling	GRMZM2G479110	kernel_7DAP	A1ZM055354_at	kernel_7DAP	967.2875	15.925
Cytokinin biosynthesis	GRMZM2G138750	kernel_7DAP	A1ZM055786_at	kernel_7DAP	251.3	31.8
Cytokinin biosynthesis	GRMZM2G459563	kernel_7DAP	A1ZM055787_at	kernel_7DAP	626.5875	32.625
Cytokinin degradation	GRMZM2G338465	kernel_7DAP	A1ZM055814_at	kernel_7DAP	119.2625	1.525
Cytokinin signaling	GRMZM2G099797	kernel_7DAP	A1ZM056039_at	kernel_7DAP	1109.4	44.25
Cytokinin signaling	GRMZM2G099797	kernel_7DAP	A1ZM056039_x_at	kernel_7DAP	1150.888	21.725
Cytokinin signaling	GRMZM2G099797	kernel_7DAP	A1ZM056078_at	kernel_7DAP	439.7375	37.425
Cytokinin transport	GRMZM2G002391	kernel_7DAP	A1ZM056320_at	kernel_7DAP	5995.4	95.3
Cytokinin transport	GRMZM2G066923	kernel_7DAP	A1ZM056353_a_at	kernel_7DAP	740.8625	45.525
Cytokinin signaling	GRMZM2G039246	kernel_7DAP	A1ZM059893_at	kernel_7DAP	68.3625	1.225
Cytokinin signaling	GRMZM2G471529	kernel_7DAP	A1ZM060982_at	kernel_7DAP	133.325	10.7
Cytokinin signaling	GRMZM2G360523	kernel_7DAP	A1ZM061145_at	kernel_7DAP	190.575	2.35
Cytokinin signaling	GRMZM2G179024	kernel_7DAP	A1ZM062048_at	kernel_7DAP	67.475	3.05
Cytokinin signaling	GRMZM2G177220	kernel_7DAP	A1ZM064845_s_at	kernel_7DAP	197.6625	7.675
Cytokinin transport	GRMZM2G009344	kernel_7DAP	A1ZM065250_s_at	kernel_7DAP	9512.963	400.625
Cytokinin transport	GRMZM2G389285	kernel_7DAP	A1ZM072064_at	kernel_7DAP	538.75	61.7

Supplemental Table S4. Contd.

Cytokinin transport	GRMZM2G389285	kernel_7DAP	A1ZM072065_at	kernel_7DAP	125.9	5.45
Cytokinin signaling	GRMZM2G014154	kernel_7DAP	A1ZM072781_at	kernel_7DAP	65.4875	3.175
Cytokinin signaling	GRMZM2G129954	kernel_7DAP	A1ZM074600_at	kernel_7DAP	143.375	16.15
Cytokinin transport	GRMZM2G066923	kernel_7DAP	A1ZM076470_a_at	kernel_7DAP	548.85	13.25
Cytokinin signaling	GRMZM2G151223	kernel_7DAP	A1ZM077656_at	kernel_7DAP	1670.088	123.625
Cytokinin signaling	GRMZM2G155767	kernel_7DAP	A1ZM083176_at	kernel_7DAP	115.4125	0.475
Cytokinin biosynthesis	GRMZM2G008247	endosperm_12DAP	A1ZM000028_at	endosperm_12DAP	103.05	6.75
Cytokinin biosynthesis	GRMZM2G118003	endosperm_12DAP	A1ZM002666_at	endosperm_12DAP	14890.04	241.025
Cytokinin biosynthesis	GRMZM2G163544	endosperm_12DAP	A1ZM003701_s_at	endosperm_12DAP	174.4625	4.925
Cytokinin biosynthesis	GRMZM2G076946	endosperm_12DAP	A1ZM007439_at	endosperm_12DAP	96.875	4.25
Cytokinin biosynthesis	GRMZM2G076946	endosperm_12DAP	A1ZM007439_x_at	endosperm_12DAP	96.7375	4.575
Cytokinin biosynthesis	GRMZM2G112704	endosperm_12DAP	A1ZM010919_at	endosperm_12DAP	142.775	6.6
Cytokinin biosynthesis	GRMZM2G108133	endosperm_12DAP	A1ZM014158_s_at	endosperm_12DAP	189.475	0.35
Cytokinin biosynthesis	GRMZM2G055699	endosperm_12DAP	A1ZM020918_at	endosperm_12DAP	302.8625	3.525
Cytokinin biosynthesis	GRMZM2G014844	endosperm_12DAP	A1ZM021681_a_at	endosperm_12DAP	140.55	9.25
Cytokinin biosynthesis	GRMZM2G031660	endosperm_12DAP	A1ZM022664_at	endosperm_12DAP	855.3125	84.375
Cytokinin biosynthesis	GRMZM2G016890	endosperm_12DAP	A1ZM023447_s_at	endosperm_12DAP	114.25	3.65
Cytokinin biosynthesis	GRMZM2G163544	endosperm_12DAP	A1ZM023488_at	endosperm_12DAP	119.3	2.4
Cytokinin biosynthesis	GRMZM2G120962	endosperm_12DAP	A1ZM024014_at	endosperm_12DAP	118.275	2.5
Cytokinin biosynthesis	GRMZM2G426467	endosperm_12DAP	A1ZM024168_at	endosperm_12DAP	92.7875	2.275
Cytokinin biosynthesis	GRMZM2G108133	endosperm_12DAP	A1ZM024914_at	endosperm_12DAP	732.025	58.45
Cytokinin biosynthesis	GRMZM2G148176	endosperm_12DAP	A1ZM025352_at	endosperm_12DAP	1139.5	124.7
Cytokinin biosynthesis	GRMZM2G012236	endosperm_12DAP	A1ZM039162_at	endosperm_12DAP	88.425	1.25
Cytokinin biosynthesis	GRMZM2G148176	endosperm_12DAP	A1ZM048263_s_at	endosperm_12DAP	233.2125	19.625
Cytokinin biosynthesis	GRMZM2G118003	endosperm_12DAP	A1ZM050083_s_at	endosperm_12DAP	4298.9	207.1
Cytokinin biosynthesis	GRMZM2G016890	endosperm_12DAP	A1ZM055974_a_at	endosperm_12DAP	139.4125	2.575
Cytokinin biosynthesis	GRMZM2G376416	endosperm_12DAP	A1ZM058473_at	endosperm_12DAP	58.975	0.35
Cytokinin biosynthesis	GRMZM2G055699	endosperm_12DAP	A1ZM060572_at	endosperm_12DAP	452.0125	68.375
Cytokinin biosynthesis	GRMZM2G376416	endosperm_12DAP	A1ZM065193_at	endosperm_12DAP	404.4875	48.825
Cytokinin biosynthesis	GRMZM2G163544	endosperm_12DAP	A1ZM074078_s_at	endosperm_12DAP	106.6125	0.925
Cytokinin biosynthesis	GRMZM2G008247	endosperm_12DAP	A1ZM074439_at	endosperm_12DAP	67.05	0.8
Cytokinin biosynthesis	GRMZM2G077015	endosperm_12DAP	A1ZM074440_at	endosperm_12DAP	117.25	1.65
Cytokinin biosynthesis	GRMZM2G008247	endosperm_15DAP	A1ZM000028_at	endosperm_15DAP	103.75	5.3
Cytokinin biosynthesis	GRMZM2G118003	endosperm_15DAP	A1ZM002666_at	endosperm_15DAP	10810.11	1598.975
Cytokinin biosynthesis	GRMZM2G163544	endosperm_15DAP	A1ZM003701_s_at	endosperm_15DAP	184.5625	4.025
Cytokinin biosynthesis	GRMZM2G076946	endosperm_15DAP	A1ZM007439_at	endosperm_15DAP	101.3875	9.225
Cytokinin biosynthesis	GRMZM2G076946	endosperm_15DAP	A1ZM007439_x_at	endosperm_15DAP	99.1375	4.425

Supplemental Table S4. Contd.

Cytokinin biosynthesis	GRMZM2G112704	endosperm_15DAP	A1ZM010919_at	endosperm_15DAP	183.5	24.25
Cytokinin biosynthesis	GRMZM2G108133	endosperm_15DAP	A1ZM014158_s_at	endosperm_15DAP	185.075	7.35
Cytokinin biosynthesis	GRMZM2G055699	endosperm_15DAP	A1ZM020918_at	endosperm_15DAP	626.4875	73.825
Cytokinin biosynthesis	GRMZM2G014844	endosperm_15DAP	A1ZM021681_a_at	endosperm_15DAP	151.1	7.9
Cytokinin biosynthesis	GRMZM2G031660	endosperm_15DAP	A1ZM022664_at	endosperm_15DAP	997.35	47.65
Cytokinin biosynthesis	GRMZM2G016890	endosperm_15DAP	A1ZM023447_s_at	endosperm_15DAP	102.9	4.15
Cytokinin biosynthesis	GRMZM2G163544	endosperm_15DAP	A1ZM023488_at	endosperm_15DAP	122.65	6.6
Cytokinin biosynthesis	GRMZM2G120962	endosperm_15DAP	A1ZM024014_at	endosperm_15DAP	144.975	5.75
Cytokinin biosynthesis	GRMZM2G426467	endosperm_15DAP	A1ZM024168_at	endosperm_15DAP	105.5375	1.275
Cytokinin biosynthesis	GRMZM2G108133	endosperm_15DAP	A1ZM024914_at	endosperm_15DAP	972.675	33.75
Cytokinin biosynthesis	GRMZM2G148176	endosperm_15DAP	A1ZM025352_at	endosperm_15DAP	2630.988	714.775
Cytokinin biosynthesis	GRMZM2G012236	endosperm_15DAP	A1ZM039162_at	endosperm_15DAP	98.075	7.15
Cytokinin biosynthesis	GRMZM2G148176	endosperm_15DAP	A1ZM048263_s_at	endosperm_15DAP	460.375	94.7
Cytokinin biosynthesis	GRMZM2G118003	endosperm_15DAP	A1ZM050083_s_at	endosperm_15DAP	2833.325	440.25
Cytokinin biosynthesis	GRMZM2G016890	endosperm_15DAP	A1ZM055974_a_at	endosperm_15DAP	143.05	7.7
Cytokinin biosynthesis	GRMZM2G376416	endosperm_15DAP	A1ZM058473_at	endosperm_15DAP	59.9625	0.175
Cytokinin biosynthesis	GRMZM2G055699	endosperm_15DAP	A1ZM060572_at	endosperm_15DAP	1148.713	187.325
Cytokinin biosynthesis	GRMZM2G376416	endosperm_15DAP	A1ZM065193_at	endosperm_15DAP	467.0625	7.775
Cytokinin biosynthesis	GRMZM2G163544	endosperm_15DAP	A1ZM074078_s_at	endosperm_15DAP	121.0625	2.925
Cytokinin biosynthesis	GRMZM2G008247	endosperm_15DAP	A1ZM074439_at	endosperm_15DAP	72.5125	0.575
Cytokinin biosynthesis	GRMZM2G077015	endosperm_15DAP	A1ZM074440_at	endosperm_15DAP	132.825	16.85
Cytokinin biosynthesis	GRMZM2G008247	endosperm_18DAP	A1ZM000028_at	endosperm_18DAP	169.0125	50.925
Cytokinin biosynthesis	GRMZM2G118003	endosperm_18DAP	A1ZM002666_at	endosperm_18DAP	17890.48	4841.6
Cytokinin biosynthesis	GRMZM2G163544	endosperm_18DAP	A1ZM003701_s_at	endosperm_18DAP	178.35	4.8
Cytokinin biosynthesis	GRMZM2G076946	endosperm_18DAP	A1ZM007439_at	endosperm_18DAP	97.15	3.7
Cytokinin biosynthesis	GRMZM2G076946	endosperm_18DAP	A1ZM007439_x_at	endosperm_18DAP	98.5	6.3
Cytokinin biosynthesis	GRMZM2G112704	endosperm_18DAP	A1ZM010919_at	endosperm_18DAP	157.2	18.45
Cytokinin biosynthesis	GRMZM2G108133	endosperm_18DAP	A1ZM014158_s_at	endosperm_18DAP	169.9625	4.875
Cytokinin biosynthesis	GRMZM2G055699	endosperm_18DAP	A1ZM020918_at	endosperm_18DAP	916.175	307.25
Cytokinin biosynthesis	GRMZM2G014844	endosperm_18DAP	A1ZM021681_a_at	endosperm_18DAP	151.25	16.3
Cytokinin biosynthesis	GRMZM2G031660	endosperm_18DAP	A1ZM022664_at	endosperm_18DAP	656.3125	158.275
Cytokinin biosynthesis	GRMZM2G016890	endosperm_18DAP	A1ZM023447_s_at	endosperm_18DAP	98.0125	5.775
Cytokinin biosynthesis	GRMZM2G163544	endosperm_18DAP	A1ZM023488_at	endosperm_18DAP	112.9125	5.125
Cytokinin biosynthesis	GRMZM2G120962	endosperm_18DAP	A1ZM024014_at	endosperm_18DAP	8061.675	5795.7
Cytokinin biosynthesis	GRMZM2G426467	endosperm_18DAP	A1ZM024168_at	endosperm_18DAP	130.55	22.8
Cytokinin biosynthesis	GRMZM2G108133	endosperm_18DAP	A1ZM024914_at	endosperm_18DAP	2060.175	906.45
Cytokinin biosynthesis	GRMZM2G148176	endosperm_18DAP	A1ZM025352_at	endosperm_18DAP	13435.1	6993.25

Supplemental Table S4. Contd.

Cytokinin biosynthesis	GRMZM2G012236	endosperm_18DAP	A1ZM039162_at	endosperm_18DAP	90.6625	4.025
Cytokinin biosynthesis	GRMZM2G148176	endosperm_18DAP	A1ZM048263_s_at	endosperm_18DAP	3584.775	2044.45
Cytokinin biosynthesis	GRMZM2G118003	endosperm_18DAP	A1ZM050083_s_at	endosperm_18DAP	4079.413	1076.525
Cytokinin biosynthesis	GRMZM2G016890	endosperm_18DAP	A1ZM055974_a_at	endosperm_18DAP	16183.78	11748.7
Cytokinin biosynthesis	GRMZM2G376416	endosperm_18DAP	A1ZM058473_at	endosperm_18DAP	61.925	3.95
Cytokinin biosynthesis	GRMZM2G055699	endosperm_18DAP	A1ZM060572_at	endosperm_18DAP	2238.3	856.8
Cytokinin biosynthesis	GRMZM2G376416	endosperm_18DAP	A1ZM065193_at	endosperm_18DAP	407.475	2
Cytokinin biosynthesis	GRMZM2G163544	endosperm_18DAP	A1ZM074078_s_at	endosperm_18DAP	117.7	4.65
Cytokinin biosynthesis	GRMZM2G008247	endosperm_18DAP	A1ZM074439_at	endosperm_18DAP	70.525	0.45
Cytokinin biosynthesis	GRMZM2G077015	endosperm_18DAP	A1ZM074440_at	endosperm_18DAP	127.025	11.1
Cytokinin biosynthesis	GRMZM2G008247	endosperm_22DAP	A1ZM000028_at	endosperm_22DAP	193.775	64.7
Cytokinin biosynthesis	GRMZM2G118003	endosperm_22DAP	A1ZM002666_at	endosperm_22DAP	17057.76	4338.225
Cytokinin biosynthesis	GRMZM2G163544	endosperm_22DAP	A1ZM003701_s_at	endosperm_22DAP	182.325	9.9
Cytokinin biosynthesis	GRMZM2G076946	endosperm_22DAP	A1ZM007439_at	endosperm_22DAP	106.6	12.85
Cytokinin biosynthesis	GRMZM2G076946	endosperm_22DAP	A1ZM007439_x_at	endosperm_22DAP	101.5125	4.725
Cytokinin biosynthesis	GRMZM2G112704	endosperm_22DAP	A1ZM010919_at	endosperm_22DAP	142.325	7.65
Cytokinin biosynthesis	GRMZM2G108133	endosperm_22DAP	A1ZM014158_s_at	endosperm_22DAP	187.2875	22.775
Cytokinin biosynthesis	GRMZM2G055699	endosperm_22DAP	A1ZM020918_at	endosperm_22DAP	854.3125	218.725
Cytokinin biosynthesis	GRMZM2G014844	endosperm_22DAP	A1ZM021681_a_at	endosperm_22DAP	168.825	13
Cytokinin biosynthesis	GRMZM2G031660	endosperm_22DAP	A1ZM022664_at	endosperm_22DAP	750.4125	251.225
Cytokinin biosynthesis	GRMZM2G016890	endosperm_22DAP	A1ZM023447_s_at	endosperm_22DAP	105.6875	13.825
Cytokinin biosynthesis	GRMZM2G163544	endosperm_22DAP	A1ZM023488_at	endosperm_22DAP	123.9125	16.975
Cytokinin biosynthesis	GRMZM2G120962	endosperm_22DAP	A1ZM024014_at	endosperm_22DAP	8433.3	5536.8
Cytokinin biosynthesis	GRMZM2G426467	endosperm_22DAP	A1ZM024168_at	endosperm_22DAP	127.2875	10.775
Cytokinin biosynthesis	GRMZM2G108133	endosperm_22DAP	A1ZM024914_at	endosperm_22DAP	1868.613	710.525
Cytokinin biosynthesis	GRMZM2G148176	endosperm_22DAP	A1ZM025352_at	endosperm_22DAP	12343.76	6727.275
Cytokinin biosynthesis	GRMZM2G012236	endosperm_22DAP	A1ZM039162_at	endosperm_22DAP	94.4125	6.325
Cytokinin biosynthesis	GRMZM2G148176	endosperm_22DAP	A1ZM048263_s_at	endosperm_22DAP	2802.513	1607.175
Cytokinin biosynthesis	GRMZM2G118003	endosperm_22DAP	A1ZM050083_s_at	endosperm_22DAP	4390.038	1018.925
Cytokinin biosynthesis	GRMZM2G016890	endosperm_22DAP	A1ZM055974_a_at	endosperm_22DAP	14902.1	9836.45
Cytokinin biosynthesis	GRMZM2G376416	endosperm_22DAP	A1ZM058473_at	endosperm_22DAP	60.55	4.25
Cytokinin biosynthesis	GRMZM2G055699	endosperm_22DAP	A1ZM060572_at	endosperm_22DAP	1974.9	705.65
Cytokinin biosynthesis	GRMZM2G376416	endosperm_22DAP	A1ZM065193_at	endosperm_22DAP	418.15	27
Cytokinin biosynthesis	GRMZM2G163544	endosperm_22DAP	A1ZM074078_s_at	endosperm_22DAP	112.65	3.75
Cytokinin biosynthesis	GRMZM2G008247	endosperm_22DAP	A1ZM074439_at	endosperm_22DAP	73.1625	3.875
Cytokinin biosynthesis	GRMZM2G077015	endosperm_22DAP	A1ZM074440_at	endosperm_22DAP	127.3875	6.225
Cytokinin biosynthesis	GRMZM2G008247	endosperm_28DAP	A1ZM000028_at	endosperm_28DAP	103.8625	7.175

Supplemental Table S4. Contd.

Cytokinin biosynthesis	GRMZM2G118003	endosperm_28DAP	A1ZM002666_at	endosperm_28DAP	8642.788	17.325
Cytokinin biosynthesis	GRMZM2G163544	endosperm_28DAP	A1ZM003701_s_at	endosperm_28DAP	171	15.45
Cytokinin biosynthesis	GRMZM2G076946	endosperm_28DAP	A1ZM007439_at	endosperm_28DAP	91.6375	2.275
Cytokinin biosynthesis	GRMZM2G076946	endosperm_28DAP	A1ZM007439_x_at	endosperm_28DAP	93.3875	2.775
Cytokinin biosynthesis	GRMZM2G112704	endosperm_28DAP	A1ZM010919_at	endosperm_28DAP	173.3625	10.375
Cytokinin biosynthesis	GRMZM2G108133	endosperm_28DAP	A1ZM014158_s_at	endosperm_28DAP	175.525	0.4
Cytokinin biosynthesis	GRMZM2G055699	endosperm_28DAP	A1ZM020918_at	endosperm_28DAP	972.1875	220.675
Cytokinin biosynthesis	GRMZM2G014844	endosperm_28DAP	A1ZM021681_a_at	endosperm_28DAP	147.9375	4.075
Cytokinin biosynthesis	GRMZM2G031660	endosperm_28DAP	A1ZM022664_at	endosperm_28DAP	794.2	88.4
Cytokinin biosynthesis	GRMZM2G016890	endosperm_28DAP	A1ZM023447_s_at	endosperm_28DAP	105.75	4.9
Cytokinin biosynthesis	GRMZM2G163544	endosperm_28DAP	A1ZM023488_at	endosperm_28DAP	109.9875	7.075
Cytokinin biosynthesis	GRMZM2G120962	endosperm_28DAP	A1ZM024014_at	endosperm_28DAP	135.8	3.9
Cytokinin biosynthesis	GRMZM2G426467	endosperm_28DAP	A1ZM024168_at	endosperm_28DAP	116.475	1.55
Cytokinin biosynthesis	GRMZM2G108133	endosperm_28DAP	A1ZM024914_at	endosperm_28DAP	1015.7	174.95
Cytokinin biosynthesis	GRMZM2G148176	endosperm_28DAP	A1ZM025352_at	endosperm_28DAP	5769.388	540.925
Cytokinin biosynthesis	GRMZM2G012236	endosperm_28DAP	A1ZM039162_at	endosperm_28DAP	100.5625	6.525
Cytokinin biosynthesis	GRMZM2G148176	endosperm_28DAP	A1ZM048263_s_at	endosperm_28DAP	878.125	137.85
Cytokinin biosynthesis	GRMZM2G118003	endosperm_28DAP	A1ZM050083_s_at	endosperm_28DAP	1690	316.55
Cytokinin biosynthesis	GRMZM2G016890	endosperm_28DAP	A1ZM055974_a_at	endosperm_28DAP	159.225	35.55
Cytokinin biosynthesis	GRMZM2G376416	endosperm_28DAP	A1ZM058473_at	endosperm_28DAP	65.275	1.05
Cytokinin biosynthesis	GRMZM2G055699	endosperm_28DAP	A1ZM060572_at	endosperm_28DAP	2855.5	391.05
Cytokinin biosynthesis	GRMZM2G376416	endosperm_28DAP	A1ZM065193_at	endosperm_28DAP	445.0875	4.725
Cytokinin biosynthesis	GRMZM2G163544	endosperm_28DAP	A1ZM074078_s_at	endosperm_28DAP	130.525	13.95
Cytokinin biosynthesis	GRMZM2G008247	endosperm_28DAP	A1ZM074439_at	endosperm_28DAP	69.0875	1.375
Cytokinin biosynthesis	GRMZM2G077015	endosperm_28DAP	A1ZM074440_at	endosperm_28DAP	135.25	2.8
Cytokinin biosynthesis	GRMZM2G008247	endosperm_40DAP	A1ZM000028_at	endosperm_40DAP	133.75	5.2
Cytokinin biosynthesis	GRMZM2G118003	endosperm_40DAP	A1ZM002666_at	endosperm_40DAP	8297.313	1971.15
Cytokinin biosynthesis	GRMZM2G163544	endosperm_40DAP	A1ZM003701_s_at	endosperm_40DAP	239.5125	14.45
Cytokinin biosynthesis	GRMZM2G076946	endosperm_40DAP	A1ZM007439_at	endosperm_40DAP	108.1375	8.75
Cytokinin biosynthesis	GRMZM2G076946	endosperm_40DAP	A1ZM007439_x_at	endosperm_40DAP	101.7375	13.85
Cytokinin biosynthesis	GRMZM2G112704	endosperm_40DAP	A1ZM010919_at	endosperm_40DAP	166.4375	16.75
Cytokinin biosynthesis	GRMZM2G108133	endosperm_40DAP	A1ZM014158_s_at	endosperm_40DAP	177.0125	4.85
Cytokinin biosynthesis	GRMZM2G055699	endosperm_40DAP	A1ZM020918_at	endosperm_40DAP	2060.388	620.15
Cytokinin biosynthesis	GRMZM2G014844	endosperm_40DAP	A1ZM021681_a_at	endosperm_40DAP	151.3375	17.15
Cytokinin biosynthesis	GRMZM2G031660	endosperm_40DAP	A1ZM022664_at	endosperm_40DAP	525.7375	17.85
Cytokinin biosynthesis	GRMZM2G016890	endosperm_40DAP	A1ZM023447_s_at	endosperm_40DAP	84.475	1
Cytokinin biosynthesis	GRMZM2G163544	endosperm_40DAP	A1ZM023488_at	endosperm_40DAP	102.6	5.1

Supplemental Table S4. Contd.

Cytokinin biosynthesis	GRMZM2G120962	endosperm_40DAP	A1ZM024014_at	endosperm_40DAP	147.9375	11.65
Cytokinin biosynthesis	GRMZM2G426467	endosperm_40DAP	A1ZM024168_at	endosperm_40DAP	162.9	11.2
Cytokinin biosynthesis	GRMZM2G108133	endosperm_40DAP	A1ZM024914_at	endosperm_40DAP	5294.275	2174.5
Cytokinin biosynthesis	GRMZM2G148176	endosperm_40DAP	A1ZM025352_at	endosperm_40DAP	3443.163	1175.25
Cytokinin biosynthesis	GRMZM2G012236	endosperm_40DAP	A1ZM039162_at	endosperm_40DAP	92.0125	2.95
Cytokinin biosynthesis	GRMZM2G148176	endosperm_40DAP	A1ZM048263_s_at	endosperm_40DAP	512.4375	131.75
Cytokinin biosynthesis	GRMZM2G118003	endosperm_40DAP	A1ZM050083_s_at	endosperm_40DAP	311.225	56.6
Cytokinin biosynthesis	GRMZM2G016890	endosperm_40DAP	A1ZM055974_a_at	endosperm_40DAP	169.825	17.4
Cytokinin biosynthesis	GRMZM2G376416	endosperm_40DAP	A1ZM058473_at	endosperm_40DAP	69.95	2.6
Cytokinin biosynthesis	GRMZM2G055699	endosperm_40DAP	A1ZM060572_at	endosperm_40DAP	10360.88	4509.8
Cytokinin biosynthesis	GRMZM2G376416	endosperm_40DAP	A1ZM065193_at	endosperm_40DAP	1181.663	140.15
Cytokinin biosynthesis	GRMZM2G163544	endosperm_40DAP	A1ZM074078_s_at	endosperm_40DAP	144.525	4
Cytokinin biosynthesis	GRMZM2G008247	endosperm_40DAP	A1ZM074439_at	endosperm_40DAP	68.9625	2.95
Cytokinin biosynthesis	GRMZM2G077015	endosperm_40DAP	A1ZM074440_at	endosperm_40DAP	133.3	7.2
Cytokinin biosynthesis	GRMZM2G008247	kernel_2DAP	A1ZM000028_at	kernel_2DAP	551.2625	8.075
Cytokinin biosynthesis	GRMZM2G118003	kernel_2DAP	A1ZM002666_at	kernel_2DAP	27926.74	419.725
Cytokinin biosynthesis	GRMZM2G163544	kernel_2DAP	A1ZM003701_s_at	kernel_2DAP	195.5125	22.275
Cytokinin biosynthesis	GRMZM2G076946	kernel_2DAP	A1ZM007439_at	kernel_2DAP	109.2375	4.375
Cytokinin biosynthesis	GRMZM2G076946	kernel_2DAP	A1ZM007439_x_at	kernel_2DAP	136.3375	2.125
Cytokinin biosynthesis	GRMZM2G112704	kernel_2DAP	A1ZM010919_at	kernel_2DAP	116.825	1.6
Cytokinin biosynthesis	GRMZM2G108133	kernel_2DAP	A1ZM014158_s_at	kernel_2DAP	169.475	15.7
Cytokinin biosynthesis	GRMZM2G055699	kernel_2DAP	A1ZM020918_at	kernel_2DAP	141.75	2.2
Cytokinin biosynthesis	GRMZM2G014844	kernel_2DAP	A1ZM021681_a_at	kernel_2DAP	1639.125	27
Cytokinin biosynthesis	GRMZM2G031660	kernel_2DAP	A1ZM022664_at	kernel_2DAP	370.8	8.8
Cytokinin biosynthesis	GRMZM2G016890	kernel_2DAP	A1ZM023447_s_at	kernel_2DAP	127.3875	10.725
Cytokinin biosynthesis	GRMZM2G163544	kernel_2DAP	A1ZM023488_at	kernel_2DAP	105.6	4.05
Cytokinin biosynthesis	GRMZM2G120962	kernel_2DAP	A1ZM024014_at	kernel_2DAP	96.65	0.3
Cytokinin biosynthesis	GRMZM2G426467	kernel_2DAP	A1ZM024168_at	kernel_2DAP	85.6875	1.725
Cytokinin biosynthesis	GRMZM2G108133	kernel_2DAP	A1ZM024914_at	kernel_2DAP	199.625	5.8
Cytokinin biosynthesis	GRMZM2G148176	kernel_2DAP	A1ZM025352_at	kernel_2DAP	4760.875	41.9
Cytokinin biosynthesis	GRMZM2G012236	kernel_2DAP	A1ZM039162_at	kernel_2DAP	76.5375	1.875
Cytokinin biosynthesis	GRMZM2G148176	kernel_2DAP	A1ZM048263_s_at	kernel_2DAP	765.9625	8.175
Cytokinin biosynthesis	GRMZM2G118003	kernel_2DAP	A1ZM050083_s_at	kernel_2DAP	7710.1	186.3
Cytokinin biosynthesis	GRMZM2G016890	kernel_2DAP	A1ZM055974_a_at	kernel_2DAP	34198.9	1238.85
Cytokinin biosynthesis	GRMZM2G376416	kernel_2DAP	A1ZM058473_at	kernel_2DAP	52.025	1.6
Cytokinin biosynthesis	GRMZM2G055699	kernel_2DAP	A1ZM060572_at	kernel_2DAP	127.4	2.3
Cytokinin biosynthesis	GRMZM2G376416	kernel_2DAP	A1ZM065193_at	kernel_2DAP	298.95	15

Supplemental Table S4. Contd.

Cytokinin biosynthesis	GRMZM2G163544	kernel_2DAP	A1ZM074078_s_at	kernel_2DAP	109.475	0.8
Cytokinin biosynthesis	GRMZM2G008247	kernel_2DAP	A1ZM074439_at	kernel_2DAP	56.95	2.65
Cytokinin biosynthesis	GRMZM2G077015	kernel_2DAP	A1ZM074440_at	kernel_2DAP	125.125	3.55
Cytokinin biosynthesis	GRMZM2G008247	kernel_7DAP	A1ZM000028_at	kernel_7DAP	142.3125	15.325
Cytokinin biosynthesis	GRMZM2G118003	kernel_7DAP	A1ZM002666_at	kernel_7DAP	25394.83	986.95
Cytokinin biosynthesis	GRMZM2G163544	kernel_7DAP	A1ZM003701_s_at	kernel_7DAP	247.475	28.25
Cytokinin biosynthesis	GRMZM2G076946	kernel_7DAP	A1ZM007439_at	kernel_7DAP	83.3	5.2
Cytokinin biosynthesis	GRMZM2G076946	kernel_7DAP	A1ZM007439_x_at	kernel_7DAP	94.2875	3.875
Cytokinin biosynthesis	GRMZM2G112704	kernel_7DAP	A1ZM010919_at	kernel_7DAP	113.55	5
Cytokinin biosynthesis	GRMZM2G108133	kernel_7DAP	A1ZM014158_s_at	kernel_7DAP	168.6375	1.725
Cytokinin biosynthesis	GRMZM2G055699	kernel_7DAP	A1ZM020918_at	kernel_7DAP	198.225	13.15
Cytokinin biosynthesis	GRMZM2G014844	kernel_7DAP	A1ZM021681_a_at	kernel_7DAP	865.0125	228.225
Cytokinin biosynthesis	GRMZM2G031660	kernel_7DAP	A1ZM022664_at	kernel_7DAP	470.2	10.35
Cytokinin biosynthesis	GRMZM2G016890	kernel_7DAP	A1ZM023447_s_at	kernel_7DAP	103.2125	4.375
Cytokinin biosynthesis	GRMZM2G163544	kernel_7DAP	A1ZM023488_at	kernel_7DAP	108.5125	4.275
Cytokinin biosynthesis	GRMZM2G120962	kernel_7DAP	A1ZM024014_at	kernel_7DAP	91.05	8.65
Cytokinin biosynthesis	GRMZM2G426467	kernel_7DAP	A1ZM024168_at	kernel_7DAP	81.5875	4.825
Cytokinin biosynthesis	GRMZM2G108133	kernel_7DAP	A1ZM024914_at	kernel_7DAP	305.8125	44.625
Cytokinin biosynthesis	GRMZM2G148176	kernel_7DAP	A1ZM025352_at	kernel_7DAP	4882.125	1095.7
Cytokinin biosynthesis	GRMZM2G012236	kernel_7DAP	A1ZM039162_at	kernel_7DAP	75.3625	5.625
Cytokinin biosynthesis	GRMZM2G148176	kernel_7DAP	A1ZM048263_s_at	kernel_7DAP	772.275	207.95
Cytokinin biosynthesis	GRMZM2G118003	kernel_7DAP	A1ZM050083_s_at	kernel_7DAP	7265.213	223.325
Cytokinin biosynthesis	GRMZM2G016890	kernel_7DAP	A1ZM055974_a_at	kernel_7DAP	17455.51	2235.275
Cytokinin biosynthesis	GRMZM2G376416	kernel_7DAP	A1ZM058473_at	kernel_7DAP	51.1375	3.625
Cytokinin biosynthesis	GRMZM2G055699	kernel_7DAP	A1ZM060572_at	kernel_7DAP	355.3625	52.325
Cytokinin biosynthesis	GRMZM2G376416	kernel_7DAP	A1ZM065193_at	kernel_7DAP	750.575	157.1
Cytokinin biosynthesis	GRMZM2G163544	kernel_7DAP	A1ZM074078_s_at	kernel_7DAP	121.925	6
Cytokinin biosynthesis	GRMZM2G008247	kernel_7DAP	A1ZM074439_at	kernel_7DAP	54.8375	2.575
Cytokinin biosynthesis	GRMZM2G077015	kernel_7DAP	A1ZM074440_at	kernel_7DAP	100.425	9.65
Cytokinin signaling	GRMZM2G423456	endosperm_12DAP	A1ZM005128_at	endosperm_12DAP	96.225	1.25
Cytokinin signaling	GRMZM2G126834	endosperm_12DAP	A1ZM009127_s_at	endosperm_12DAP	487.85	15.95
Cytokinin signaling	GRMZM2G423456	endosperm_12DAP	A1ZM023515_at	endosperm_12DAP	418.2	17.2
Cytokinin biosynthesis	GRMZM2G047684	endosperm_12DAP	A1ZM031200_at	endosperm_12DAP	269.025	11.45
Cytokinin biosynthesis	GRMZM2G047684	endosperm_12DAP	A1ZM036719_at	endosperm_12DAP	658.95	14.25
Cytokinin signaling	GRMZM2G126834	endosperm_12DAP	A1ZM056039_at	endosperm_12DAP	1338.05	73.95
Cytokinin signaling	GRMZM2G126834	endosperm_12DAP	A1ZM056039_x_at	endosperm_12DAP	1357.9	10.8

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G126834	endosperm_12DAP	A1ZM056078_at	endosperm_12DAP	713.1125	16.275
Cytokinin signaling	GRMZM2G423456	endosperm_12DAP	A1ZM060982_at	endosperm_12DAP	161.45	4.6
Cytokinin signaling	GRMZM2G423456	endosperm_15DAP	A1ZM005128_at	endosperm_15DAP	99.925	1.05
Cytokinin signaling	GRMZM2G126834	endosperm_15DAP	A1ZM009127_s_at	endosperm_15DAP	286.95	13.25
Cytokinin signaling	GRMZM2G423456	endosperm_15DAP	A1ZM023515_at	endosperm_15DAP	441.3125	55.425
Cytokinin biosynthesis	GRMZM2G047684	endosperm_15DAP	A1ZM031200_at	endosperm_15DAP	306.7625	8.925
Cytokinin biosynthesis	GRMZM2G047684	endosperm_15DAP	A1ZM036719_at	endosperm_15DAP	810.6875	78.925
Cytokinin signaling	GRMZM2G126834	endosperm_15DAP	A1ZM056039_at	endosperm_15DAP	1433.138	7.375
Cytokinin signaling	GRMZM2G126834	endosperm_15DAP	A1ZM056039_x_at	endosperm_15DAP	1497.613	36.775
Cytokinin signaling	GRMZM2G126834	endosperm_15DAP	A1ZM056078_at	endosperm_15DAP	1105.65	107.1
Cytokinin signaling	GRMZM2G423456	endosperm_15DAP	A1ZM060982_at	endosperm_15DAP	186.7875	4.125
Cytokinin signaling	GRMZM2G423456	endosperm_18DAP	A1ZM005128_at	endosperm_18DAP	105.675	4.35
Cytokinin signaling	GRMZM2G126834	endosperm_18DAP	A1ZM009127_s_at	endosperm_18DAP	317.125	22.3
Cytokinin signaling	GRMZM2G423456	endosperm_18DAP	A1ZM023515_at	endosperm_18DAP	549.7	15.1
Cytokinin biosynthesis	GRMZM2G047684	endosperm_18DAP	A1ZM031200_at	endosperm_18DAP	258.6875	6.225
Cytokinin biosynthesis	GRMZM2G047684	endosperm_18DAP	A1ZM036719_at	endosperm_18DAP	816.0375	98.125
Cytokinin signaling	GRMZM2G126834	endosperm_18DAP	A1ZM056039_at	endosperm_18DAP	1407.763	187.525
Cytokinin signaling	GRMZM2G126834	endosperm_18DAP	A1ZM056039_x_at	endosperm_18DAP	1467.888	180.325
Cytokinin signaling	GRMZM2G126834	endosperm_18DAP	A1ZM056078_at	endosperm_18DAP	1078.75	209.6
Cytokinin signaling	GRMZM2G423456	endosperm_18DAP	A1ZM060982_at	endosperm_18DAP	189.9625	16.725
Cytokinin signaling	GRMZM2G423456	endosperm_22DAP	A1ZM005128_at	endosperm_22DAP	99.025	2.8
Cytokinin signaling	GRMZM2G126834	endosperm_22DAP	A1ZM009127_s_at	endosperm_22DAP	293.2	51.9
Cytokinin signaling	GRMZM2G423456	endosperm_22DAP	A1ZM023515_at	endosperm_22DAP	437.9	59.85
Cytokinin biosynthesis	GRMZM2G047684	endosperm_22DAP	A1ZM031200_at	endosperm_22DAP	278.8125	7.225
Cytokinin biosynthesis	GRMZM2G047684	endosperm_22DAP	A1ZM036719_at	endosperm_22DAP	740.8375	83.625
Cytokinin signaling	GRMZM2G126834	endosperm_22DAP	A1ZM056039_at	endosperm_22DAP	1184.913	135.475
Cytokinin signaling	GRMZM2G126834	endosperm_22DAP	A1ZM056039_x_at	endosperm_22DAP	1165.65	106.6
Cytokinin signaling	GRMZM2G126834	endosperm_22DAP	A1ZM056078_at	endosperm_22DAP	920.9875	200.625
Cytokinin signaling	GRMZM2G423456	endosperm_22DAP	A1ZM060982_at	endosperm_22DAP	174.575	17.15
Cytokinin signaling	GRMZM2G423456	endosperm_28DAP	A1ZM005128_at	endosperm_28DAP	109.65	3.45
Cytokinin signaling	GRMZM2G126834	endosperm_28DAP	A1ZM009127_s_at	endosperm_28DAP	315.3125	97.025
Cytokinin signaling	GRMZM2G423456	endosperm_28DAP	A1ZM023515_at	endosperm_28DAP	644.85	18.25
Cytokinin biosynthesis	GRMZM2G047684	endosperm_28DAP	A1ZM031200_at	endosperm_28DAP	287.3625	3.425
Cytokinin biosynthesis	GRMZM2G047684	endosperm_28DAP	A1ZM036719_at	endosperm_28DAP	815.35	23.95
Cytokinin signaling	GRMZM2G126834	endosperm_28DAP	A1ZM056039_at	endosperm_28DAP	1957.488	27.375
Cytokinin signaling	GRMZM2G126834	endosperm_28DAP	A1ZM056039_x_at	endosperm_28DAP	2042.45	58
Cytokinin signaling	GRMZM2G126834	endosperm_28DAP	A1ZM056078_at	endosperm_28DAP	1225.55	9.8

Supplemental Table S4. Contd.

Cytokinin signaling	GRMZM2G423456	endosperm_28DAP	A1ZM060982_at	endosperm_28DAP	187.6	7.9
Cytokinin signaling	GRMZM2G423456	endosperm_40DAP	A1ZM005128_at	endosperm_40DAP	120.025	6.5
Cytokinin signaling	GRMZM2G126834	endosperm_40DAP	A1ZM009127_s_at	endosperm_40DAP	173.8125	10.65
Cytokinin signaling	GRMZM2G423456	endosperm_40DAP	A1ZM023515_at	endosperm_40DAP	661.2875	26.45
Cytokinin biosynthesis	GRMZM2G047684	endosperm_40DAP	A1ZM031200_at	endosperm_40DAP	429.6125	87.25
Cytokinin biosynthesis	GRMZM2G047684	endosperm_40DAP	A1ZM036719_at	endosperm_40DAP	1177.65	136
Cytokinin signaling	GRMZM2G126834	endosperm_40DAP	A1ZM056039_at	endosperm_40DAP	1350.8	31.3
Cytokinin signaling	GRMZM2G126834	endosperm_40DAP	A1ZM056039_x_at	endosperm_40DAP	1422.338	152.95
Cytokinin signaling	GRMZM2G126834	endosperm_40DAP	A1ZM056078_at	endosperm_40DAP	1023.138	164.95
Cytokinin signaling	GRMZM2G423456	endosperm_40DAP	A1ZM060982_at	endosperm_40DAP	258.625	27.5
Cytokinin signaling	GRMZM2G423456	kernel_2DAP	A1ZM005128_at	kernel_2DAP	184.5625	5.825
Cytokinin signaling	GRMZM2G126834	kernel_2DAP	A1ZM009127_s_at	kernel_2DAP	298.15	6.7
Cytokinin signaling	GRMZM2G423456	kernel_2DAP	A1ZM023515_at	kernel_2DAP	660.0375	46.175
Cytokinin biosynthesis	GRMZM2G047684	kernel_2DAP	A1ZM031200_at	kernel_2DAP	200.5625	4.025
Cytokinin biosynthesis	GRMZM2G047684	kernel_2DAP	A1ZM036719_at	kernel_2DAP	587.95	4.15
Cytokinin signaling	GRMZM2G126834	kernel_2DAP	A1ZM056039_at	kernel_2DAP	889.5875	13.975
Cytokinin signaling	GRMZM2G126834	kernel_2DAP	A1ZM056039_x_at	kernel_2DAP	973.625	9.6
Cytokinin signaling	GRMZM2G126834	kernel_2DAP	A1ZM056078_at	kernel_2DAP	454.5	13.85
Cytokinin signaling	GRMZM2G423456	kernel_2DAP	A1ZM060982_at	kernel_2DAP	141.0375	3.475
Cytokinin signaling	GRMZM2G423456	kernel_7DAP	A1ZM005128_at	kernel_7DAP	187.9	68.8
Cytokinin signaling	GRMZM2G126834	kernel_7DAP	A1ZM009127_s_at	kernel_7DAP	334.875	40.9
Cytokinin signaling	GRMZM2G423456	kernel_7DAP	A1ZM023515_at	kernel_7DAP	491.7125	73.125
Cytokinin biosynthesis	GRMZM2G047684	kernel_7DAP	A1ZM031200_at	kernel_7DAP	232.6375	23.775
Cytokinin biosynthesis	GRMZM2G047684	kernel_7DAP	A1ZM036719_at	kernel_7DAP	769.525	17.95
Cytokinin signaling	GRMZM2G126834	kernel_7DAP	A1ZM056039_at	kernel_7DAP	1109.4	44.25
Cytokinin signaling	GRMZM2G126834	kernel_7DAP	A1ZM056039_x_at	kernel_7DAP	1150.888	21.725
Cytokinin signaling	GRMZM2G126834	kernel_7DAP	A1ZM056078_at	kernel_7DAP	439.7375	37.425
Cytokinin signaling	GRMZM2G423456	kernel_7DAP	A1ZM060982_at	kernel_7DAP	133.325	10.7
Cytokinin degradation	GRMZM2G167220	endosperm_12DAP		endosperm_12DAP	208.95	
Cytokinin degradation	GRMZM2G162048	endosperm_12DAP		endosperm_12DAP	550.25	
Cytokinin degradation	GRMZM2G325612	endosperm_12DAP		endosperm_12DAP	356.95	
Cytokinin degradation	GRMZM2G348452	endosperm_12DAP		endosperm_12DAP	551.8625	
Cytokinin degradation	GRMZM5G817173	endosperm_12DAP		endosperm_12DAP	518.15	
Cytokinin degradation	GRMZM2G167220	endosperm_15DAP		endosperm_15DAP	241.7375	
Cytokinin degradation	GRMZM2G162048	endosperm_15DAP		endosperm_15DAP	611.9875	
Cytokinin degradation	GRMZM2G325612	endosperm_15DAP		endosperm_15DAP	636.7375	
Cytokinin degradation	GRMZM2G348452	endosperm_15DAP		endosperm_15DAP	468.5625	

Supplemental Table S4. Contd.

Cytokinin degradation	GRMZM5G817173	endosperm_15DAP	endosperm_15DAP	558.325
Cytokinin degradation	GRMZM2G167220	endosperm_18DAP	endosperm_18DAP	262.6625
Cytokinin degradation	GRMZM2G162048	endosperm_18DAP	endosperm_18DAP	552.6
Cytokinin degradation	GRMZM2G325612	endosperm_18DAP	endosperm_18DAP	568.7125
Cytokinin degradation	GRMZM2G348452	endosperm_18DAP	endosperm_18DAP	569.8625
Cytokinin degradation	GRMZM5G817173	endosperm_18DAP	endosperm_18DAP	581.8625
Cytokinin degradation	GRMZM2G167220	endosperm_22DAP	endosperm_22DAP	237.175
Cytokinin degradation	GRMZM2G162048	endosperm_22DAP	endosperm_22DAP	511.75
Cytokinin degradation	GRMZM2G325612	endosperm_22DAP	endosperm_22DAP	447.75
Cytokinin degradation	GRMZM2G348452	endosperm_22DAP	endosperm_22DAP	650.825
Cytokinin degradation	GRMZM5G817173	endosperm_22DAP	endosperm_22DAP	512.775
Cytokinin degradation	GRMZM2G167220	endosperm_28DAP	endosperm_28DAP	220.5125
Cytokinin degradation	GRMZM2G162048	endosperm_28DAP	endosperm_28DAP	610.525
Cytokinin degradation	GRMZM2G325612	endosperm_28DAP	endosperm_28DAP	735.575
Cytokinin degradation	GRMZM2G348452	endosperm_28DAP	endosperm_28DAP	427.525
Cytokinin degradation	GRMZM5G817173	endosperm_28DAP	endosperm_28DAP	705.5875
Cytokinin degradation	GRMZM2G167220	endosperm_40DAP	endosperm_40DAP	160.5625
Cytokinin degradation	GRMZM2G162048	endosperm_40DAP	endosperm_40DAP	585.475
Cytokinin degradation	GRMZM2G325612	endosperm_40DAP	endosperm_40DAP	455.7375
Cytokinin degradation	GRMZM2G348452	endosperm_40DAP	endosperm_40DAP	534.85
Cytokinin degradation	GRMZM5G817173	endosperm_40DAP	endosperm_40DAP	1667.45
Cytokinin degradation	GRMZM2G167220	kernel_2DAP	kernel_2DAP	114.5625
Cytokinin degradation	GRMZM2G162048	kernel_2DAP	kernel_2DAP	341.925
Cytokinin degradation	GRMZM2G325612	kernel_2DAP	kernel_2DAP	283.65
Cytokinin degradation	GRMZM2G348452	kernel_2DAP	kernel_2DAP	1156.45
Cytokinin degradation	GRMZM5G817173	kernel_2DAP	kernel_2DAP	462.2375
Cytokinin degradation	GRMZM2G167220	kernel_7DAP	kernel_7DAP	177.0375
Cytokinin degradation	GRMZM2G162048	kernel_7DAP	kernel_7DAP	322.475
Cytokinin degradation	GRMZM2G325612	kernel_7DAP	kernel_7DAP	253.4625
Cytokinin degradation	GRMZM2G348452	kernel_7DAP	kernel_7DAP	1104.525
Cytokinin degradation	GRMZM5G817173	kernel_7DAP	kernel_7DAP	1221.138

Supplemental Table S5. Levels of active and inactive forms of kernel cytokinins at mid (21-22 DAP) and late (38 DAP) kernel stages in both the embryo and endosperm.

Trait name	Crop	Tissue	Sample type	Sample sub type-2	Group 3a	Control mean
DHZ-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	0.09
DHZ-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	0.09
DHZR-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	0.013
DHZR-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	0.013
IP-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	0.249
IP-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	0.249
IPR-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	5.7426
IPR-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	5.7426
tZeatin-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	0.8083
tZeatin-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	0.8083
tZR-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	5.1922
tZR-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	5.1922
ZG-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	10.7202
ZG-pmole/g	Corn	Ear	Kernel - embryo	22DAP	Inbred	10.7202
DHZ-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	0.2843
DHZ-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	0.2843
DHZR-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	0.602
DHZR-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	0.602
IP-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	1.4182
IP-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	1.4182
IPR-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	52.8134
IPR-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	52.8134
tZeatin-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	10.7335
tZeatin-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	10.7335
tZR-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	70.4014
tZR-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	70.4014
ZG-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	12.9407
ZG-pmole/g	Corn	Ear	Kernel - endosperm	22DAP	Inbred	12.9407
DHZ-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	0.1274
DHZ-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	0.1274
DHZR-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	0.1107
DHZR-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	0.1107
IP-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	0.4807
IP-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	0.4807
IPR-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	12.304

Supplemental Table S5. Contd.

IPR-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	12.304
tZeatin-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	1.4312
tZeatin-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	1.4312
tZR-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	5.1278
tZR-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	5.1278
ZG-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	10.341
ZG-pmole/g	Corn	Ear	Kernel - embryo	38DAP	Inbred	10.341
DHZ-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	0.7858
DHZ-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	0.7858
DHZR-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	1.5036
DHZR-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	1.5036
IP-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	0.9549
IP-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	0.9549
IPR-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	20.8285
IPR-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	20.8285
tZeatin-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	1.2324
tZeatin-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	1.2324
tZR-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	9.6516
tZR-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	9.6516
ZG-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	1.9953
ZG-pmole/g	Corn	Ear	Kernel - endosperm	38DAP	Inbred	1.9953

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