

Table S7 Meiotic gene expression at five stages of early anther development.

| MaizeGdbProteinID | MaizeGdbProteinName | 0.15mm | 0.25mm | 0.4mm | 0.7mm | 1.0mm |
|-------------------|---|--------|--------|-------|-------|-------|
| AC198518.3_FG002 | Sterile alpha motif (SAM) domain-containing protein | ON | ON | ON | ON | ON |
| AC207628.4_FG005 | Porin/voltage-dependent anion-selective channel protein, alpha amylase activity | OFF | ON | ON | ON | ON |
| AC231745.1_FGT004 | Protein-tyrosine sulfotransferase† | ON | ON | ON | ON | ON |
| GRMZM2G000397 | Calcium-binding EF hand family protein | ON | ON | ON | ON | ON |
| GRMZM2G001803 | ZIP metal ion transporter family UBA/THIF-type NAD/FAD binding fold | ON | ON | ON | ON | ON |
| GRMZM2G002765 | RNA recognition motif 2 | ON | ON | ON | ON | ON |
| GRMZM2G004455 | Mitochondrial processing peptidase, alpha subunit | ON | ON | ON | ON | ON |
| GRMZM2G005036 | Splicing factor 3b, subunit 4 | ON | ON | ON | ON | ON |
| GRMZM2G005374 | RecF/RecN/SMC protein, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G006452 | RecF/RecN/SMC protein, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G006452 | Tropomyosin | ON | ON | ON | ON | ON |
| GRMZM2G006452 | RecF/RecN/SMC protein, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G006452 | BBD: bifunctional nuclease in wound defense | ON | ON | ON | ON | ON |
| GRMZM2G007300 | Ubiquitin carrier protein | ON | ON | ON | ON | ON |
| GRMZM2G008226 | Trehalose-6-phosphate synthase | ON | ON | OFF | ON | OFF |
| GRMZM2G011078 | Secretory carrier membrane protein, SC3, transport | ON | ON | ON | ON | ON |
| GRMZM2G012030 | Vinculin/alpha-catenin | ON | ON | ON | ON | ON |
| GRMZM2G016602 | protein recA | ON | ON | ON | ON | ON |
| GRMZM2G019596 | Vamp/synaptobrevin-associated protein 27-2; major sperm protein | ON | ON | ON | ON | ON |
| GRMZM2G019596 | Vamp/synaptobrevin-associated protein 27-2; major sperm protein | ON | ON | ON | ON | ON |
| GRMZM2G020974 | DNA breaking-rejoining enzyme, catalytic core | ON | ON | ON | ON | ON |
| GRMZM2G021270 | hypothetical protein | ON | ON | ON | ON | ON |
| GRMZM2G021270 | LOC100193866 | ON | ON | ON | ON | ON |
| GRMZM2G021270 | DNA topoisomerase, type IIA, subunit A or C-termin | ON | ON | ON | ON | ON |
| GRMZM2G024739 | Cryptochrome/DNA photolyase, class 1 conserved sit | ON | ON | ON | ON | ON |
| GRMZM2G028369 | Chorismate mutase precursor | ON | ON | ON | ON | ON |
| GRMZM2G028640 | Cupin superfamily enzyme | ON | ON | ON | ON | ON |
| GRMZM2G028763 | Membrane related protein-like Chaperone (DnaJ); mitochondrial import inner membrane | ON | ON | ON | ON | ON |
| GRMZM2G029385 | translocase subunit TIM14 | ON | ON | ON | ON | ON |
| GRMZM2G030523 | Proliferating cell nuclear antigen, PCNA | ON | ON | ON | ON | ON |
| GRMZM2G032003 | UTP--glucose-1-phosphate uridylyltransferase† | ON | ON | ON | ON | ON |
| GRMZM2G032562 | SCF ubiquitin ligase, Skp1 | ON | ON | ON | ON | ON |

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|---------------|--|-----|-----|-----|-----|-----|--|
| | component; SKP1-like protein 1B (mediates cell cycle) | | | | | | |
| GRMZM2G034631 | Tyrosylprotein sulfotransferase | ON | ON | ON | ON | ON | |
| GRMZM2G035996 | Shaggy kinase homolog Fragment | ON | ON | ON | ON | OFF | |
| GRMZM2G036765 | Aspartate decarboxylase-like fold | ON | ON | ON | ON | ON | |
| GRMZM2G039094 | MATH domain containing protein | ON | ON | ON | ON | ON | |
| GRMZM2G041418 | NADH-dehydrogenase (ubiquinone), | OFF | ON | OFF | ON | ON | |
| GRMZM2G042477 | Monoglyceride lipase isoform 2- like, partial (90%) | ON | ON | ON | ON | ON | |
| GRMZM2G043509 | Endonuclease/Exonuclease/phosp hatase family; DNaseI-like | ON | ON | ON | ON | ON | |
| GRMZM2G044011 | eRF1 domain 3 | ON | ON | ON | ON | ON | |
| GRMZM2G046055 | Histone H2A | ON | ON | ON | ON | ON | |
| GRMZM2G047204 | Peptidyl-prolyl glycoprotein; histidine kinase | ON | ON | ON | ON | ON | |
| GRMZM2G050329 | Major Facilitator Superfamily with SPX (SYG1/Pho81/XPR1) | ON | ON | ON | ON | ON | |
| GRMZM2G050684 | Predicted membrane protein, contains two CBS domains | ON | ON | ON | ON | ON | |
| GRMZM2G050684 | CBS domain containing protein | ON | ON | ON | ON | ON | |
| GRMZM2G052403 | hypothetical protein LOC100383700 | ON | ON | ON | ON | ON | |
| GRMZM2G054115 | Alliinase EGF-like domain; Pyridoxal phosphate (PLP)- dependent transferases † | ON | ON | ON | ON | ON | |
| GRMZM2G055807 | Restriction endonuclease, type I, R subunit/Type I | ON | ON | ON | ON | ON | |
| GRMZM2G055807 | DNA repair and transcription factor XPB1 | ON | ON | ON | ON | ON | |
| GRMZM2G056075 | DNA mismatch repair protein MSH2 (MUS1) | ON | ON | ON | ON | ON | |
| GRMZM2G057652 | Protein of unknown function DUF1751, integral memb | ON | ON | OFF | OFF | ON | |
| GRMZM2G058954 | ATPase, AAA+ type, core DNA repair protein | ON | ON | ON | ON | ON | |
| GRMZM2G058954 | RAD51/RHP55, single stranded DNA repair | ON | ON | ON | ON | ON | |
| GRMZM2G060394 | SKP1-like protein 1A | ON | ON | OFF | ON | ON | |
| GRMZM2G061023 | RuvA domain 2-like | ON | ON | ON | ON | ON | |
| GRMZM2G062761 | MAP kinase, conserved site | ON | ON | ON | ON | ON | |
| GRMZM2G062914 | Serine/threonine protein kinase- related | ON | ON | ON | ON | ON | |
| GRMZM2G063316 | SET domain-containing protein,Rubisco methyltransferase family protein | ON | ON | ON | ON | ON | |
| GRMZM2G063961 | Serine/threonine-protein kinase SAPK4 | ON | ON | ON | ON | ON | |
| GRMZM2G064868 | Putative 5-3 exonuclease | ON | ON | ON | ON | ON | |
| GRMZM2G064868 | Zinc finger, CCHC-type | ON | ON | ON | ON | ON | |
| GRMZM2G070047 | Ubiquitin-conjugating enzyme/RWD-like | OFF | OFF | OFF | OFF | OFF | |
| GRMZM2G070639 | Kinesin-like protein | OFF | OFF | OFF | OFF | ON | |
| GRMZM2G071304 | ATP dependent DNA ligase, central | ON | ON | ON | ON | ON | |
| GRMZM2G071304 | ATP dependent DNA ligase, | ON | ON | ON | ON | ON | |

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|---------------|---|-----|-----|-----|-----|-----|
| | central | | | | | |
| GRMZM2G071630 | Glyceraldehyde 3-phosphate dehydrogenase (GAPC3) | ON | ON | ON | ON | ON |
| GRMZM2G072088 | Unknown function, localized to plasma membrane | ON | ON | OFF | ON | ON |
| GRMZM2G074082 | Shugoshin, N-terminal | ON | ON | OFF | ON | ON |
| GRMZM2G074818 | Rad21/Rec8 like protein, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G074818 | Rad21/Rec8 like protein, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G074818 | Rad21/Rec8 like protein, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G077823 | Arginine:serine-rich splicing factor SC35 | ON | ON | ON | ON | ON |
| GRMZM2G079613 | Tetratricopeptide TPR-1 Phosphoribosyl-AMP | ON | ON | ON | ON | ON |
| GRMZM2G082214 | cyclohydrolase | ON | ON | ON | ON | ON |
| GRMZM2G083394 | DCD domain protein - involved in development and cell death during HR response | ON | ON | ON | ON | ON |
| GRMZM2G083475 | Prefoldin | ON | ON | ON | ON | ON |
| GRMZM2G083975 | Splicing factor RSZ33 (RSZ33) | ON | ON | ON | ON | ON |
| GRMZM2G084762 | DNA repair and recombination, RecA-like | ON | ON | ON | ON | ON |
| GRMZM2G088162 | hypothetical protein LOC100276374 | ON | ON | ON | ON | ON |
| GRMZM2G090152 | Core-2/I-Branching enzyme, beta-1,6-N-acetylglucosaminyltransferase, role in salt stress. | ON | ON | ON | ON | ON |
| GRMZM2G090262 | C-terminal phosphatase-like 4; NLI interacting factor-like phosphatase | ON | ON | ON | ON | ON |
| GRMZM2G091656 | GRAS domain family, RGA-like 2 | ON | ON | ON | ON | ON |
| GRMZM2G092232 | Kinesin, motor region | ON | ON | ON | ON | ON |
| GRMZM2G093119 | Rad21/Rec8 like protein, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G093623 | DNA mismatch repair protein MutS, C-terminal | ON | ON | OFF | ON | ON |
| GRMZM2G096070 | WD40 repeat-like | ON | ON | ON | ON | ON |
| GRMZM2G097605 | Helicase-like, DEXD box c2 type | ON | ON | ON | ON | ON |
| GRMZM2G099080 | SNX2b: sorting nexin 2B; phox domain containing protein | ON | ON | ON | ON | ON |
| GRMZM2G100103 | Poor homologous synapsis 1 (PHS1) (meiosis chromosome pairing) | OFF | OFF | OFF | OFF | ON |
| GRMZM2G101613 | Cyclin-dependent kinase inhibitor | OFF | ON | ON | ON | ON |
| GRMZM2G102088 | Serine/threonine protein kinase-related | ON | ON | ON | ON | ON |
| GRMZM2G103287 | Apospory-associated proteion aldose 1-epimerase | ON | ON | ON | ON | ON |
| GRMZM2G103287 | Apospory-associated protein; aldose 1-epimerase | ON | ON | ON | ON | ON |
| GRMZM2G105250 | AGO18a; Translation initiation factor 2C (eIF-2C) | ON | ON | ON | ON | OFF |
| GRMZM2G105387 | MADS32; transcription factor; homolog of AtAGAMOUS-like 12 | OFF | OFF | OFF | OFF | OFF |

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|---------------|---|-----|-----|-----|-----|-----|
| GRMZM2G108712 | Proliferating cell nuclear antigen, PCNA | ON | ON | ON | ON | ON |
| GRMZM2G109383 | Phosphoglucomutase, cytoplasmic | ON | ON | ON | ON | ON |
| GRMZM2G109383 | Phosphoglucomutase, cytoplasmic 1 (PGM 1)(EC 5.4.2), phosphomannomutase | ON | ON | ON | ON | ON |
| GRMZM2G109496 | Serine/threonine protein phosphatase | ON | ON | ON | ON | ON |
| GRMZM2G109618 | DMC1 protein type B, DNA repair during meiotic recombination | OFF | OFF | OFF | OFF | OFF |
| GRMZM2G110212 | DNA mismatch repair protein MutS-like, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G111436 | Predicted 3'-5' exonuclease, Werner syndrome DNA helicase, nucleosidase | ON | ON | ON | ON | ON |
| GRMZM2G113228 | Endonuclease III, 4Fe4S cluster, base excision repair | ON | ON | ON | ON | ON |
| GRMZM2G113967 | NAF | ON | ON | OFF | ON | ON |
| GRMZM2G115013 | RPA1a, replication protein required for meiotic DNA repair | ON | ON | ON | ON | ON |
| GRMZM2G115504 | alpha / beta esterase; thioesterase; hydrolase | ON | ON | ON | ON | ON |
| GRMZM2G116243 | 1-acylglycerol-3-phosphate O-acyltransferase | ON | ON | ON | ON | ON |
| GRMZM2G116427 | Metal ion binding; mitochondrial protein | ON | ON | ON | ON | ON |
| GRMZM2G119886 | Arf GTPase activating protein | ON | ON | ON | ON | ON |
| GRMZM2G121210 | DNA topoisomerase, type IIA, central | ON | ON | ON | ON | ON |
| GRMZM2G121262 | Helix-hairpin-helix motif, class 2 | ON | ON | ON | ON | ON |
| GRMZM2G121312 | Leucine-rich repeat, typical subtype | ON | ON | ON | ON | ON |
| GRMZM2G121543 | DNA repair protein RAD51 | ON | ON | ON | ON | ON |
| GRMZM2G122306 | Nucleic acid-binding, OB-fold-like P-loop ATP hydrolase, CH (Calponin Homology) domain, | ON | ON | ON | ON | ON |
| GRMZM2G122965 | KINESIN motor domain containing | OFF | OFF | OFF | OFF | ON |
| GRMZM2G123776 | Thioredoxin or redox protein | ON | ON | ON | ON | ON |
| GRMZM2G124365 | Chorismate mutase | ON | ON | OFF | ON | ON |
| GRMZM2G124691 | Cyclin | OFF | ON | OFF | ON | ON |
| GRMZM2G124718 | Poly(ADP-ribose) polymerase, catalytic region | ON | ON | ON | ON | ON |
| GRMZM2G127893 | hypothetical protein LOC100217125 | ON | ON | OFF | ON | ON |
| GRMZM2G128771 | GTPase Rab6/YPT6/Ryh1, small G protein superfamily | ON | ON | ON | ON | ON |
| GRMZM2G129175 | Uncharacterized, contains transmembrane domain | ON | ON | ON | ON | ON |
| GRMZM2G129913 | Spo11/DNA topoisomerase VI, subunit A | ON | ON | ON | ON | ON |
| GRMZM2G131443 | Aldehyde dehydrogenase, conserved site | ON | ON | ON | ON | ON |
| GRMZM2G133006 | MATE efflux family protein | ON | OFF | OFF | OFF | ON |
| GRMZM2G133048 | Phosphatidate cytidylyltransferase† | ON | ON | ON | ON | ON |
| GRMZM2G133952 | DNA mismatch repair, conserved | ON | ON | ON | ON | ON |

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|---------------|---|-----|-----|-----|-----|-----|
| | site | | | | | |
| GRMZM2G134502 | Emp24/gp25L/p24 membrane trafficking; phospholipid binding; annexin | ON | ON | ON | ON | ON |
| GRMZM2G134708 | Monodehydroascorbate/ferredoxin reductase | ON | ON | ON | ON | ON |
| GRMZM2G135073 | Ste20-like serine/threonine protein kinase | ON | ON | ON | ON | ON |
| GRMZM2G135654 | Ribosomal protein L7Ae/L30e/S12e/Gadd45 GTPase Rab1/YPT1, small G protein superfamily, and related GTP-binding proteins | ON | ON | ON | ON | ON |
| GRMZM2G136455 | Predicted K ⁺ /H ⁺ -antiporter | OFF | ON | ON | ON | ON |
| GRMZM2G136710 | DSB repair, DNA helicase - NHEJ (non homologous end joining) double stranded break | ON | ON | ON | ON | ON |
| GRMZM2G137968 | Calcium binding atopy-related autoantigen 1 (LOC10 | ON | ON | ON | ON | ON |
| GRMZM2G138566 | GDP-mannose 3\5' epimerase; dehydratase | ON | ON | ON | ON | ON |
| GRMZM2G138907 | 8-oxoguanine DNA glycosylase, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G139031 | Rhomboid domain containing 1 | ON | ON | ON | ON | ON |
| GRMZM2G140994 | WD40 repeat | ON | ON | ON | ON | ON |
| GRMZM2G143211 | Ubiquitin-associated/translation elongation factor | ON | ON | ON | ON | ON |
| GRMZM2G143462 | Synaptonemal complex central region protein ZYP1-1 | ON | ON | ON | ON | ON |
| GRMZM2G143590 | Splicing factor, SPF45 | ON | ON | ON | ON | ON |
| GRMZM2G145034 | Transcription initiation factor IIF, large subunit (RAP74) | ON | ON | ON | ON | ON |
| GRMZM2G145085 | Triosephosphate isomerase | ON | ON | OFF | ON | ON |
| GRMZM2G146206 | BRCT | ON | ON | ON | ON | ON |
| GRMZM2G146490 | DEAD-like helicase, N-terminal hypothetical protein | OFF | OFF | OFF | OFF | OFF |
| GRMZM2G148249 | LOC100383454 | ON | ON | ON | ON | ON |
| GRMZM2G149289 | Galactosyltransferases | ON | ON | ON | ON | ON |
| GRMZM2G153760 | Mitochondrial K ⁺ -H ⁺ exchange-related | ON | ON | ON | ON | ON |
| GRMZM2G153899 | Pumilio-family RNA binding repeat† | OFF | OFF | OFF | OFF | OFF |
| GRMZM2G155806 | Acetyl-CoA synthetase | OFF | ON | OFF | OFF | OFF |
| GRMZM2G157269 | EGG APPARATUS-1 protein | ON | ON | ON | ON | ON |
| GRMZM2G157505 | Rad51, C-terminal | OFF | OFF | OFF | OFF | OFF |
| GRMZM2G157817 | VH1-interacting kinase; ankyrin repeat containing | ON | ON | ON | ON | ON |
| GRMZM2G159034 | ATPase associated with various cellular activities | OFF | ON | OFF | ON | OFF |
| GRMZM2G159307 | NADP ⁺ -dependent malic enzyme | ON | ON | ON | ON | ON |
| GRMZM2G159724 | Heat shock protein | ON | ON | ON | ON | ON |
| GRMZM2G162968 | Leafbladeless1-like | ON | ON | ON | ON | ON |
| GRMZM2G163514 | RXW8 protein, Lipase, GDSL | ON | ON | ON | ON | ON |
| GRMZM2G164470 | Alpha-D-phosphohexomutase, alpha/beta/alpha I, II | ON | OFF | OFF | ON | ON |
| GRMZM2G166597 | | | | | | |

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|---------------|--|-----|-----|-----|-----|-----|
| GRMZM2G166658 | Serine/threonine protein kinase-related | ON | ON | ON | ON | ON |
| GRMZM2G169089 | Acyl-CoA:diacylglycerol acyltransferase 1 | ON | ON | ON | ON | OFF |
| GRMZM2G169709 | Phosphoethanolamine N-methyltransferase | ON | ON | ON | ON | ON |
| GRMZM2G169931 | Nonsense-mediated mRNA decay NMD3 family protein | OFF | ON | ON | ON | ON |
| GRMZM2G173428 | FOG: RRM domain, CID11, nucleic acid binding | OFF | ON | OFF | ON | ON |
| GRMZM2G174574 | Acyl-CoA synthetase hypothetical protein | OFF | OFF | OFF | ON | OFF |
| GRMZM2G175676 | LOC100384862 | ON | ON | ON | ON | ON |
| GRMZM2G175676 | RNA recognition motif, RNP-1 | ON | ON | ON | ON | ON |
| GRMZM2G177461 | Myo-inositol-1-phosphate synthase, inositol-3-phosphate synthase | ON | ON | ON | ON | ON |
| GRMZM2G179215 | Ras GTPase | ON | ON | ON | ON | ON |
| GRMZM2G300786 | SWI1 / DYAD involved in meiotic recombination hypothetical protein | ON | ON | OFF | ON | ON |
| GRMZM2G301405 | LOC100192986 | ON | ON | ON | ON | ON |
| GRMZM2G310739 | 3-glucanase | ON | ON | OFF | ON | ON |
| GRMZM2G315176 | DNA/RNA helicase, DEAD/DEAH box type, N-terminal | ON | ON | ON | ON | ON |
| GRMZM2G315726 | LAG1 longevity assurance homolog 3, ASC1 | ON | ON | ON | ON | ON |
| GRMZM2G315726 | ASC1, WD-domain, sphingolipid biosynthesis, resists fungal infection | ON | ON | ON | ON | ON |
| GRMZM2G315769 | Sodium:dicarboxylate symporter | ON | ON | ON | ON | ON |
| GRMZM2G324390 | Keratin, type I | ON | ON | ON | ON | ON |
| GRMZM2G324781 | SNF2 helicase domain-containing protein; DNA repair protein | ON | ON | ON | ON | ON |
| GRMZM2G329710 | RAD16 | ON | ON | ON | ON | ON |
| GRMZM2G336761 | EBNA-1, FAS1 domain Zinc finger, C3HC4 type (RING finger), U-box | ON | ON | ON | ON | ON |
| GRMZM2G342807 | Permeases (Mycobacterium smegmatis str. MC2 155) | ON | ON | ON | ON | ON |
| GRMZM2G347717 | UDP-glucuronic acid decarboxylase, 3-beta-hydroxy-Delta(5)-steroid dehydrogenase | ON | ON | OFF | ON | ON |
| GRMZM2G349996 | Eukaryotic translation initiation factor 1A | ON | ON | ON | ON | ON |
| GRMZM2G351810 | bHLH transcription factor | OFF | ON | OFF | ON | ON |
| GRMZM2G372180 | Calponin-like actin-binding | ON | ON | ON | ON | ON |
| GRMZM2G390896 | Protein kinase-like | ON | ON | OFF | ON | OFF |
| GRMZM2G408768 | 14-3-3 protein | ON | ON | OFF | ON | ON |
| GRMZM2G410710 | Prohibitin, Mitochondrial prohibitin complex protein 1, membrane, PHB3 | ON | ON | ON | ON | ON |
| GRMZM2G416019 | Leucine-rich repeat | OFF | OFF | OFF | OFF | OFF |
| GRMZM2G416069 | RecF/RecN/SMC protein, N-terminal | OFF | OFF | OFF | OFF | ON |
| GRMZM2G425986 | Endonuclease III-like, iron-sulphur | ON | ON | ON | ON | ON |

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|---------------|--|-----|-----|-----|-----|-----|-----|
| | cluster loop | | | | | | |
| | ZmAGO121, AtAGO6 and AtAGO4 homolog (involved in RdDM) | | | | | | |
| GRMZM2G432075 | Zwille:pinhead-like | ON | ON | ON | ON | ON | ON |
| GRMZM2G447447 | Protein kinase-like | ON | ON | ON | ON | ON | ON |
| GRMZM2G456570 | SMCs flexible hinge | ON | ON | ON | ON | ON | ON |
| GRMZM2G456626 | Inositol 1,3,4-trisphosphate 5/6-kinase family protein | ON | ON | ON | ON | ON | ON |
| GRMZM2G457370 | AGO18b; similar to ZLL:PNH | OFF | OFF | OFF | OFF | ON | ON |
| GRMZM2G458974 | Ribosomal protein S7e family tRNA pseudouridine synthase D (TruD) [†] | OFF | ON | OFF | ON | OFF | OFF |
| GRMZM2G459702 | Exo70 exocyst complex subunit [†] (exocytosis) | ON | ON | ON | ON | ON | ON |
| GRMZM2G464382 | Transcription elongation factor, IIS | OFF | OFF | OFF | ON | OFF | OFF |
| GRMZM2G465553 | hypothetical protein | ON | ON | ON | ON | ON | ON |
| GRMZM2G468479 | LOC100217142 | ON | ON | ON | ON | ON | ON |
| GRMZM2G470438 | Zinc finger, GRF-type | ON | ON | ON | ON | ON | ON |
| GRMZM2G474929 | Selenium-binding protein-like Malonyl CoA-acyl carrier protein transacylase | ON | ON | ON | ON | ON | ON |
| GRMZM2G547542 | NADH-dehydrogenase (ubiquinone) - FAD, NADP, NADPH binding, cytoplasm | ON | ON | ON | ON | ON | OFF |
| GRMZM2G563190 | FOG: Predicted E3 ubiquitin ligase, RHC1A | ON | ON | ON | ON | ON | ON |
| GRMZM2G588241 | RecA family protein, NTP binding, DNA repair, ssDNA binding | ON | ON | ON | ON | ON | ON |
| GRMZM2G700757 | HSP70 | ON | ON | ON | ON | ON | ON |
| GRMZM5G802801 | FACT complex subunit SPT16 (Facilitates transcription via Pol II) | ON | ON | ON | ON | ON | ON |
| GRMZM5G806358 | Alanine aminotransferase | ON | ON | ON | ON | ON | ON |
| GRMZM5G828630 | Poly [ADP-ribose] polymerase 1 (PARP-1)(EC 2.4.2.3 | ON | ON | ON | ON | ON | ON |
| GRMZM5G831712 | Transcription initiation factor IIA gamma chain (TFIIA-gamma) | ON | ON | ON | ON | ON | ON |
| GRMZM5G832378 | Tryptophan synthase alpha | OFF | OFF | OFF | ON | ON | ON |
| GRMZM5G841619 | Laccase 1, complete (oxygen binding - quinone associated) | ON | ON | ON | ON | ON | ON |
| GRMZM5G842071 | Meiotic recombination protein | OFF | OFF | OFF | OFF | OFF | OFF |
| GRMZM5G856297 | somatic embryogenesis receptor-like kinase1 | OFF | OFF | OFF | OFF | OFF | OFF |
| GRMZM5G870959 | Kinesin 1-like | ON | ON | ON | ON | ON | ON |
| GRMZM5G878823 | UTP--glucose-1-phosphate uridylyltransferase | ON | ON | ON | ON | ON | ON |
| GRMZM5G889299 | PAP/OAS1 substrate-binding domain superfamily, | ON | ON | ON | ON | ON | ON |
| GRMZM5G890815 | nucleotidyltransferase | OFF | OFF | OFF | ON | ON | ON |
| GRMZM5G892926 | Not determined - may be psuedogene | ON | ON | ON | ON | ON | ON |
| GRMZM5G899800 | hypothetical protein LOC100272324 | ON | ON | ON | ON | ON | ON |

Expression patterns of genes classified as meiotic genes, including known genes involved in maize meiosis, maize homologs of meiotic genes in other flowering plants, and 222 annotated genes that are all mis-regulated in *ameiotic1* anthers were scored. Gene identifiers, Gene Ontology and their expressions (ON or OFF) are listed.