Supplementary Table S5: Selected tags preferentially expressed in different stages of spermatogenesis. Tags from the six gene clusters that were preferentially expressed in different stages of spermatogenesis were mapped to SAGEmap by Unigene conversion build 145. The mapped genes were also compared with microarray data from previous publish data and public sources. Symbols marked with * indicates both SAGE and microarray data demonstrated similar trend on expression pattern. # indicates no comparable data can be found.

Cluster 1

Tag sequence	Unigene	Symbol	Description	Spga	Spcy	Sptd
CAAAATAAAT	Mm.73091	Asz1	Ankyrin repeat, SAM and basic leucine zipper domain containing 1	13	8	8
CCTCAGCCTG	Mm.231395	Ctsd*	Cathepsin D (lysosomal aspartyl protease)	30	2	2
TCATAGAAAC	Mm.282158	Cct5	Chaperonin containing TCP1, subunit 5 (epsilon)	35	17	16
GTTCCAAAGA	Mm.277792	Col1a2*	Collagen, type I, alpha 2	20	0	0
TGTTCATCTT	Mm.249555	Col3a1*	Collagen, type III, alpha 1 (Ehlers-Danlos syndrome type IV, autosomal dominant)	24	0	0
CATTCTTCCT	Mm.227925	Csrp2bp	CSRP2 binding protein	25	1	1
GTGGTTCACA	Mm.89961	Birc1b#	Baculoviral IAP repeat-containing 1b	164	19	22
GGATATGTGG	Mm.181959	Egr1*	Early growth response 1	120	8	9
TGTTCATCTT	Mm.189270	Eda2r#	Ectodysplasin A2 receptor	24	0	0
GTGGCTGGTG	Mm.1415	Epas1	Endothelial PAS domain protein 1	32	2	2
TGTTGATTAG	Mm.27624	H2afv*	H2A histone family, member V	69	9	8
CCTCCCTTTT	Mm.215667	Hspe1*	Heat shock 10kDa protein 1 (chaperonin 10)	106	2	2
GAATAATAAA	Mm.336743	Hspa8*	Heat shock 70kDa protein 8	203	30	26
GCCTCTCCTC	Mm.246385	Samd11#	Sterile alpha motif domain containing 11	34	0	0
CAAAATAAAT	Mm.297333	Usp29*	Ubiquitin specific protease 29	13	8	8

Cluster 2

Tag sequence	Unigene	Symbol	Description	Spga	Spcy	Sptd
GCCACGCCCC	Mm.6584	Hpd	4-hydroxyphenylpyruvic acid dioxygenase	0	11	11
ACACTTGGAA	Mm.299604	Csda*	Cold shock domain protein A	0	27	31
AACAATGTTG	Mm.26654	Fabp9*	Fatty acid binding protein 9, testis	0	61	77
TGCTCCATCA	Mm.61330	Gtf2a1lf*	General transcription factor II A, 1-like factor	0	38	37
CGACTCTGTT	Mm.293117	Gtf2a2*	General transcription factor II A, 2	8	27	27
TGCCGTTTTG	Mm.282351	Gstm5*	Glutathione S-transferase, mu 5	5	105	104
TTCACGCAAT	Mm.249695	Ppm1b	Protein phosphatase 1B, magnesium dependent, beta isoform	4	22	22
AAAAATAAAA	Mm.331389	Ppp3ca	Protein phosphatase 3, catalytic subunit, alpha isoform	6	11	11
TTGTAACAAC	Mm.46125	Ppp3r2	Protein phosphatase 3, regulatory subunit B, alpha isoform (calcineurin B, type II)	0	105	114
TAACTGTGGC	Mm.29652	Pomt2	Protein-O-mannosyltransferase 2	0	15	15
CAAAGAAATG	Mm.46106	Spink2*	Serine protease inhibitor, Kazal type 2	0	10	10
GAGGAAGTAG	Mm.45833	Spata4*	Spermatogenesis associated 4	0	174	180
TGGCATTCTA	Mm.326683	Tcp10b*	T-complex protein 10b	0	19	20
CCCGAGAGTG	Mm.10154	Tesk1	Testis specific protein kinase 1	0	23	23

Cluster 3

Tag sequence	Unigene	Symbol	Description	Spga	Spcy	Sptd
GCAGTTGTCC	Mm.116858	Ap4s1*	Adaptor-related protein complex AP-4, sigma 1	5	19	5
TGCATTACCT	Mm.212462	Atr*	Ataxia telangiectasia and rad3 related	8	30	8
TGATGTTCCA	Mm.252213	Baz2a*	Bromodomain adjacent to zinc finger domain, 2A	10	28	11
CCGAAAAAAA	Mm.18539	Pink1	PTEN induced putative kinase 1	3	19	3
TTCAATGGTG	Mm.3752	Ranbp1*	RAN binding protein 1	12	18	12
GAGAATGGCA	Mm.24738	Rrm2b	Ribonucleotide reductase M2 B (TP53 inducible)	6	10	6
GTTTGCTGTA	Mm.252210	Serpinb6a	Receptor (TNFRSF)-interacting serine-threonine kinase 1	7	18	7
GATGAGATTG	Mm.206841	Smc4l1*	SMC4 structural maintenance of chromosomes 4-like 1 (yeast)	4	12	4
CCGAAGCTGA	Mm.340955	Smurf2*	SMAD specific E3 ubiquitin protein ligase 2	15	23	15
GATTTAAAGG	Mm.305816	Tebp*	Telomerase binding protein, p23	8	12	8
CGCTCAGTAC	Mm.270295	Tuba7	Tubulin, alpha 7	16	40	17
GGGCCCCCT	Mm.27510	Usp21*	Ubiquitin specific protease 21	8	36	8
TAACACTGAC	Mm.205421	Fndc3	Fibronectin type III domain containing 3a	7	15	7
CATCTTTATG	Mm.7884	Hbld2*	HESB like domain containing 2	6	17	6
TACACGTACC	Mm.117365	Mesdc2*	Mesoderm development candiate 2	3	15	3

Cluster 4

Tag sequence	Unigene	Symbol	Description	Spga	Spcy	Sptd
GCTTTGTTTT	Mm.297	Actb	Actin, beta, cytoplasmic	19	4	13
GATAAAGCAA	Mm.305925	Arih1	Ariadne ubiquitin-conjugating enzyme E2 binding protein homolog 1 (Drosophila)	11	2	11
ATGGGGAAGG	Mm.374813	Bag4	BCL2-associated athanogene 4	9	4	9
TGGGTATGTA	Mm.10702	Cacybp*	Calcyclin binding protein	23	0	21
CTGCCTTAAT	Mm.246520	Ccnd3*	Cyclin D3	13	4	17
TTTAATACAA	Mm.23492	Ccnl2*	Cyclin L2	9	5	10
GTATTTAGTA	Mm.261395	Hsf2*	Heat shock factor 2	13	1	8
TGAGTGGACA	Mm.373531	Mmp24	Matrix metalloproteinase 24	8	3	9
TTATGAAATG	Mm.34869	Ndufa1	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 1	16	9	15
TGTATATTGT	Mm.362077	Npat*	Nuclear protein in the AT region	14	2	10
GAGAAGTCTG	Mm.247542	Prdx4*	Peroxiredoxin 4	14	4	16
TACATAGTGC	Mm.329963	Smap1	Stromal membrane-associated protein 1	8	4	11
AGAAACAAGA	Mm.276325	Sod1*	Superoxide dismutase 1, soluble	51	5	38
ACAGTGGGGA	Mm.305816	Tebp	Telomerase binding protein, p23	61	55	61
ATGATGATGA	Mm.28876	Tm4sf14*	Tetraspanin 14	9	4	11
TGACTGGCAG	Mm.263478	Trim34*	Tripartite motif protein 34	13	4	10
TAATAATAAA	Mm.181721	Uqcrh	Ubiquinol-cytochrome c reductase hinge protein	9	2	9
CAGATCTTTG	Mm.331	Ubc	Ubiquitin C	71	21	56

Cluster 5

Tag sequence	Unigene	Symbol	Description	Spga	Spcy	Sptd
AAAAGAAATA	Mm.291247	Arl1*	ADP-ribosylation factor-like 1	8	9	18
AAATAAAACA	Mm.371641	Atp5h#	ATP synthase, H+ transporting, mitochondrial F0 complex, subunit d	16	17	30
CCCTTCACTG	Mm.260931	Orc3l	Origin recognition complex, subunit 3-like (S. cerevisiae)	20	18	42
ATACATCTAA	Mm.4214	Pla2g10*	Phospholipase A2, group X	0	0	31
GAGAAGCCTG	Mm.643	Rps15	Ribosomal protein S15	5	5	11
TAAATAAAGA	Mm.236449	Rnf34*	Ring finger protein 34	34	33	54
TTTGTCTCCT	Mm.104491	Selk*	Selenoprotein K	4	4	26
GGAAAAGTGA	Mm.6609	Serpind1*	Serine (or cysteine) proteinase inhibitor, clade D, member 1	5	6	16
CTGTCAGTGA	Mm.2847	Siah2	Seven in absentia 2	6	8	35
TTTATTTCAT	Mm.2469	Shfdg1	Split hand/foot deleted gene 1	16	19	34
CAAGATATGG	Mm.329963	Smap1	Stromal membrane-associated protein 1	8	7	17
AAGAATAAAA	Mm.220972	Tex27	Testis expressed gene 27	5	8	60
CTACAAAGAA	Mm.348050	Sstk*	Testis-specific serine kinase 6	1	2	70
TATTTTACCT	Mm.289248	Tceb1	Transcription elongation factor B (SIII), polypeptide 1	6	5	10
GACCCTGCCT	Mm.273570	Trrap#	Transformation/transcription domain-associated protein	2	3	17
GTCTATATAT	Mm.238020	Eftud1*	Elongation factor Tu GTP binding domain containing 1	2	4	28
GTATTTCATA	Mm.276229	Fbxo30*	F-box protein 30	6	6	11
TTGTGGTGAC	Mm.10929	Fmo2*	Flavin containing monooxygenase 2	3	3	22

Cluster 6

Tag sequence	Unigene	Symbol	Description	Spga	Spcy	Sptd
TGCAAGGCCC	Mm.716	Cpsf2*	Cleavage and polyadenylation specific factor 2, 100kDa	10	10	5
TGCACTTTGG	Mm.111326	Cdk2*	Cyclin-dependent kinase 2	13	15	1
TGAAAAAAAA	Mm.200362	Cybb*	Cytochrome b-245, beta polypeptide (chronic granulomatous disease)	38	41	24
AATATGTGTG	Mm.548	Cox6c	Cytochrome c oxidase subunit VIc	103	114	65
TAATGAAAAT	Mm.12818	Ddx4*	DEAD (Asp-Glu-Ala-Asp) box polypeptide 4	21	23	10
TGTGTTGTGT	Mm.220038	Ddx5*	DEAD (Asp-Glu-Ala-Asp) box polypeptide 5	12	11	3
GAGTGCAGTT	Mm.128165	Elys*	Embryonic large molecule derived from yolk sac	14	19	3
TTGGTACAAA	Mm.262037	Eif1a*	Eukaryotic translation initiation factor 1A	15	20	6
TCTTAATGAA	Mm.260084	Eif4a2*	Eukaryotic translation initiation factor 4A, isoform 2	19	20	6
AGCCTACAGA	Mm.196607	Eif5a	Eukaryotic translation initiation factor 5A	13	13	4
GGAGTAAGAA	Mm.371563	H3f3b*	H3 histone, family 3B (H3.3B)	21	22	5
ATGTGAATAA	Mm.3571	Usp5*	Ubiquitin specific protease 5 (isopeptidase T)	10	11	0
CTGTGCTTTA	Mm.180052	Ube2d2*	Ubiquitin-conjugating enzyme E2D 2 (UBC4/5 homolog, yeast)	8	8	5
AATAAAAACT	Mm.24608	Ubl5	Ubiquitin-like 5	15	16	11
CGGATAACCA	Mm.4742	Pa2g4*	Proliferation-associated 2G4	8	10	3