

### Supplementary Table 3

#### Reference and EST-identified amplicon-associated genes

Gene Family	5' primer	3' primer	Product Size	Representative EST Acc. No. <sup>1-4</sup>	Accession #'s of EST matches to different copy members <sup>3,4</sup>
<i>EG668965</i>	AGCATGGCTCTAAGGACGAG	ACAAGCTCCAGGTCGATGTC	196	BY714655	BY714655, AV261231
<i>Gmcl11</i>	CCTTTACGTGTGACCTTTACCAG	CTGAATATGACATTTCCGGATATGGT	103	CB274222	BY706179, CJ046965, AV269103, AV278943
<i>Fthl17</i>	TACTTTGACCGTGATGACGTG	AGTTTTGCTCCAGGAAATGGC	292	AF285569	CJ053381, BB014365
<i>Ssxb</i>	CCATGGAAAGTGCTTTATGAACCAAAG	CATTCTGATGTAGTTTCTTTTCATGTAC	142	CF104763	AV044471, AV268105, BB814831
<i>Slx</i>	CCTATGGATTTTGCCAGTT	TTTGGATCCCTCCTTGCTG	79	BU936093	CF981602, BF319763, BF021819, BQ839946
<i>E330016L19Rik</i>	CATCAACCTGGACCCAGATG	TGCTGTACAGCTGCCAAGC	414	AK054333	N/A
<i>Rhox</i>	TTCCCCAGCTTGCAGTAAG	TCTGTAATCGGTGGCAGTTCCG	145	BY715576	N/A
<i>Cxx1a/b/c</i>	GCTGTTTGATGGCGAGATGGAG	TGAGGCGGGTGATGAGGAAC	125	BQ042765	N/A
<i>4930527E24Rik</i>	TTGGAGGACGCTCATTCTG	ACGACTTGTGTTGATCATCTCC	234	AK015913	BB615622, BY094639, CJ046901, BY715473
<i>Magea</i>	ACCTGGAATACAGGCAGGTG	GCAGGTCAGAGGAGTTGGAG	227	BC109340	N/A
<i>4930567H17Rik</i>	CCGAAAGTCCAACCTCAGGCTACAC	CCTCCATCTCCTCATCTTCCCTCAC	309	AK133075	BB017276, AV207556
<i>Xlr4</i>	TTCCAAAATCAAGGGCAGAC	CTTCGCTCATGCTGGACTTT	279	CF616940	N/A
<i>EG434797</i>	CCCAGAGTTCAGTCACCAT	CACCTTGGAGCTCCTCACTC	186	BU743796	N/A
<i>Obp1</i>	TGAGCAAAGCACAGAAGCAGG	TGGTAGGAGTATGGGAAACAAATCC	281	AK017455	N/A
<i>Mageb</i>	CCAGGGGTCAGAAGAATAAGCAC	TCCAGCGTCACTACTTGTTTGG	245	AK006807	N/A
<i>Dmrtc1b</i>	TGGAGCAGCAGCACCTGTAATG	GCAAAAGCCCCGTAATCTC	429	AK016891	N/A
<i>Pabpc1l2</i>	CATCCTGTCCATCCGCATCTG	GACTTGAATCTCCCCACGAAAATC	416	AW047271	N/A
<i>Tgif2lx</i>	AAACGCCGATATGCAGGAT	TTCAGAAAACATTGATGAAAAAGA	408	AF434662	AV267234, AV045819
<i>Srsx</i>	GGACAGACTAGAAAAACA	CACCCATGGTTACTGGGG	383	AV276329	N/A
<i>Pramel3</i>	GATCTGTGAGGCAGAATGAAG	CATTAAGCCATCTGGATCTGA	228	AY004873	BB615343, AV273212, BB616328
<i>Ott</i>	ATGGCGAACCATGAAGACGAA	GTCCAGGGAAAATGCCTTGCC	127	AV272911	CJ047318, AV272911
<i>4921511M17Rik</i>	GCTTAGCAGCTTTCATGCTTG	ACTGGTGAGGGTAATATGCTTCA	126	AK019538	BY714396, CJ046974, CJ047157, AV265004

#### Novel/predicted amplicon-associated genes

Gene Family	5' primer	3' primer	Product Size
<i>Zfp161</i>	CTGGCAGTGTGAGGATGCTA	CTGCAGGTGCATGAACATCT	181
<i>ZxdB</i>	ATAGGTGATCCCAGTGACAG	AGTCTGGTGCACCTCCTGCT	216
<i>LOC665542</i>	CCTATGGATTTTGCCAGTT	TTTGGATCCCTCCTTGCTG	555
<i>LOC207318</i>	ATCACTATTGGTAATGAGAAGTCTGC	TGTCAGCAATGGGTATAGTGGTG	187

## (Supplementary Table 3 continued)

## Non-ampliconic multicopy genes

Gene Family	5' primer	3' primer	Product Size	Representative EST Acc. No.	Accession #'s of EST matches to different copy members
1700003E24Rik	GTCAGCCCTGTTCCAAATGT	TCTTTCCCTCGCCTTTATT	159	BC089468	CF106400, CF106296
1700012L04Rik	CCAGAGAGGTGAGCTTCCTC	CAGGCATCATCAGTTGTCATC	280	BC087913	BF149562, CB271159, CB274205
LOC278181	ATTGCCTTTCAGGGAGAGGT	GTTAGGGCGACTTCTTGCAG	233	CF742905	N/A
LOC245376	TCTGGAAGAACGGGAAGCTA	GACACACCACAGCATGGTTC	243	BF452575	N/A
1700020N15Rik	GACTCCCTTGGTTAAGGTGAAG	TCCAGCTCATAGCTTGTGGTG	150	BC049765	BY706278, AV208487
1700042B14Rik	CACCTCCAAGACCCCTGTGGT	AAGGGCAATAATGGTGGTGA	221	BC100353	BY706669, BB616916, AV268905
1700010D01Rik	TGCCATCAACCACAACATCT	ATCCTTCCCAGCGTTTTCTT	249	BC059715	AV204436, BY705969
MGC58426	TTCTGTCCATCCACTTTCC	TCAGGAACCAGAGGGTCATC	215	BC048523	N/A
4933434C23Rik	AGCCTGGCAACAGAAAAGAA	CCAAAATTCATGGGACAACC	210	AK017052	N/A
4930524N10Rik	CCCTATAAACTCGACCTGGACA	GGCTGCTGAGCTAAAAATCACA	109	AK015889	N/A

All ESTs are from adult cDNA libraries generated either from whole male testis or specific germ cell populations. For each gene, EST comparisons were made with other EST sequences identified from a single strain (CD-1 or C57BL/6J). In several cases X-linked multi-copy genes share 100% identity and thus their transcriptional status is indistinguishable from other copy members sharing perfect sequence identity. It is important to note that X chromosomal regions harboring some of multi-copy genes have not been completely assembled so all copies may not be accounted for. Additionally, since most of the EST sequences available are only from the 5' or 3' and are typically short sequences only those sequences with clear base pair differences distinguishing different copies were selected.

## Control gene

Gene Name	5' primer	3' primer	Product Size
<i>B-actin</i>	AGGTGACAGCATTGCTTCTG	GCTGCCTCAACACCTCAAC	185

Known and predicted genes identified via BLASTN searches of amplicon repeat units. Multicopy genes names for *Srsx*, *Zfp161*, *ZxdB* are *Serine rich secreted X-linked*, *Zinc finger protein -161*, *Zinc finger X-linked duplicated B*, respectively. Primer sequences for all RT-PCRs are provided.

(Supplementary Table 3 continued)

Primer sequences for long range PCR

Gene Name	5' primer	3' primer	Product Size	Template
<i>Fmr1</i>	CTGTCAGCAGGCAGCTTTTACATCCTGT	CTTGTGCGTGGACAGCATTTTGAGAGTA	12225	G135P65476A4
	ATGCCACCAAGTTCCTACCTTCCAATA	GTGACAAATATCTCCTCCAACCCCAACA	12797	G135P65476A4
<i>Scml2</i>	AAATTAGTGTCTCTGTGGCCATCTCC	GCCAAATGATCAAAAATCCAGTTTGCTTC	12302	RP24-204O18
	CGTGTGCGTGTGCATGAATGACTTAAC	GGTCATACAATTGGCAGTGAGAAATGAGG	11961	RP24-204O18
<i>Ott</i>	GGGTTCCCTTCTTCTTGATCTGTGTTCC	GTCATTACATGGATTGCTTTTGTGCAT	8893	RP24-278F7
4930527E24Rik	TCATTCACCTCCTGAAAACCTCCCTTA	TTTGTGATCATTAGGCATAGTGCCAAC	8088	RP24-170G23
	TTCCCTGAAGAAATCGTTGGAGATACACG	TCCGTACAAAAGGACTATTTGCCACTCA	9038	RP24-170G23
<i>Slx</i>	TTCCGGTACAAAGGACTATTTGCCACTCA	ATGATGATGGGAATGCAAATCCTGAAGA	11617	RP24-362F19
	GGCATAGTGCCAACATTAGGTTTTAAAGCA	AATACAAACAAAATGGCATGCAAGAGC	11701	RP24-362F19

Primer Sequences for copy-specific detection

Gene Name	5' primer	3' primer	Product Size
4930567H17Rik	GGGCCTCTGAGACCACAT	TCTGCATGGGTCGTATGA	219bp (178bp+41bp)
<i>Tgif2lx</i>	AAACGCCGATATGCAGGAT	TTCAGAAAACATTGATGGAAAAGA	409bp (331bp+78bp)

References:

1. Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R., Wilson, R. The WashU-NCI Mouse EST Project 1999. *unpublished* (1999).
2. Wang, P.J., McCarrey, J.R., Yang, F. & Page, D.C. An abundance of X-linked genes expressed in spermatogonia. *Nat Genet* **27**, 422-6 (2001).
3. McCarrey, J., Eddy, M., Marra, M., Hillier, L., Clifton, S., Pape, D., Martin, J., Wylie, T., Dante, M., Bowers, Y., Theising, B., Gibbons, M., Ritter, E., Tsagareishvili, R., Ronko, I., Maguire, L., Kennedy, S., Bennett, J., Waterston, R., Wilson, R. NIEHS Mouse. *unpublished* (2002).
4. Okazaki, Y. et al. Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs. *Nature* **420**, 563-73 (2002).