

Table 1. Protein coding genes

Megabase (Mb) interval	VEGA locus identification no. (longest 5' end located within Mb interval)	Curated locus	Mouse gene symbol (identifier in MGD)	Mouse gene name	Orthologous human gene symbol	Comment
1	OTTMUSG000000002 41	<i>Zfp618</i>	<i>Zfp618</i>	Zinc finger protein 681	<i>ZNF618</i>	
	OTTMUSG000000090 32	<i>Ambp</i>	<i>Ambp</i>	α 1 microglobulin	<i>AMBP</i>	
	OTTMUSG000000002 43	<i>Kif12</i>	<i>Kif12</i>	kinesin family member 12	<i>KIF12</i>	
	OTTMUSG000000002 44	<i>Col27a1</i>	<i>Col27a1</i>	procollagen, type XXVII, alpha 1	<i>COL27A1</i>	
	OTTMUSG000000003 05	<i>Orm1</i>	<i>Orm1</i>	orosomuroid 1	<i>ORM1</i>	
	OTTMUSG000000002 45	<i>Orm2</i>	<i>Orm3</i>	orosomuroid 3	absent	
	OTTMUSG000000003	<i>Orm3</i>	<i>Orm2</i>	orosomuroid 2	<i>ORM2</i>	

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	06					
	OTTMUSG000000002 47	<i>Akna</i>	<i>Akna</i>	AT-hook transcription factor	<i>AKNA</i>	
	OTTMUSG000000002 49	<i>Whrn</i>	<i>Whrn</i>	whirlin	<i>DFNB31</i>	
	OTTMUSG000000003 12	<i>Atp6v1g1</i>	<i>Atp6v1g1</i>	ATPase, H+ transporting, V1 subunit G isoform 1	<i>ATP6V1G1</i>	
	OTTMUSG000000002 50	RP23-230C2.2	<i>6330416G13Rik</i>	RIKEN cDNA 6330416G13 gene	<i>C9orf91</i>	
	OTTMUSG000000002 51	RP23-230C2.3	1700018C11Rik	RIKEN cDNA 1700018C11 gene	absent	110 amino acid ORF, no human orthologue
2	OTTMUSG000000003 03	<i>Tnfsf15</i>	<i>Tnfsf15</i>	tumor necrosis factor (ligand) superfamily, member 15	<i>TNFSF15</i>	

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	OTTMUSG00000000301	<i>Tnfsf8</i>	<i>Tnfsf8</i>	tumor necrosis factor (ligand) superfamily, member 8	<i>TNFSF8</i>	
	OTTMUSG00000000302	<i>Tnc</i>	<i>Tnc</i>	tenascin C	<i>TNC</i>	
3	OTTMUSG00000000318	<i>Pappa</i>	<i>Pappa</i>	pregnancy-associated plasma protein A	<i>PAPPA</i>	
	OTTMUSG00000000317	<i>Trim32</i>	<i>Trim32</i>	tripartite motif protein 32	<i>TRIM32</i>	Located within intron 14 of <i>Astn2</i>
4	OTTMUSG00000000315	<i>Astn2</i>	<i>Astn2</i>	astrotactin 2	<i>ASTN2</i>	
5	OTTMUSG00000000227	<i>Tlr4</i>	<i>Tlr4</i>	toll-like receptor 4	<i>TLR4</i>	
6	No genes					
7	OTTMUSG000000003	<i>Dbccr1</i>	<i>Dbccr1</i>	deleted in bladder cancer	<i>DBC1</i>	

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	10			chromosome region candidate 1 (human)		
8	OTTMUSG00000000307	<i>Cdk5rap2</i>	<i>Cdk5rap2</i>	CDK5 regulatory subunit associated protein 2	<i>CDK5RAP2</i>	
	OTTMUSG00000000314	<i>Egfl5</i>	<i>Egfl5</i>	EGF-like-domain, multiple 5	<i>EGFL5</i>	
9	No genes					
10	OTTMUSG00000000276	RP24-168J7.2	Not in MGD		Absent	295 amino acid ORF, no human homologue
	OTTMUSG00000000333	<i>Tle1</i>	<i>Tle1</i>	transducin-like enhancer of split 1, homolog of Drosophila E(spl)	<i>TLE1</i>	
11	OTTMUSG00000000336	RP24-191C1.1	<i>Aldoa-ps2</i>	aldolase 1, A isoform, pseudogene 2	Absent	Intronless gene, very similar to aldolase A, no human or rat equivalent.

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						Probable expressed pseudogene
	OTTMUSG00000001246	RP23-289L21.1	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	354 amino acid ORF. No human orthologue
	OTTMUSG00000000281	RP23-355N20.2	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	5x local amplification. Unknown if all are transcribed. Encode 360 amino acid ORF, almost identical to OTTMUSG00000001246, no human orthologue
	OTTMUSG00000000280	RP23-355N20.1	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	
	OTTMUSG00000000282	RP23-355N20.3	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	

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	OTTMUSG000000002 83	RP23-355N20.4	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	
	OTTMUSG000000002 84	RP23-355N20.5	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	
12	OTTMUSG000000002 85		<i>Rasef</i>	RAS and EF hand domain containing	<i>RASEF</i>	
	OTTMUSG000000040 13	RP23-292J1.1	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	4x local amplification. Unknown if all are transcribed. Encode 360 amino acid ORF, almost identical to OTTMUSG00000001246, no human orthologue
	OTTMUSG000000040 12	RP23-292J1.2	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	

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	OTTMUSG00000014862	RP23-292J1.7	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	
	OTTMUSG00000004010	RP23-292J1.3	<i>Gm428</i>	Gene Model 428 (NCBI)	Absent	
	OTTMUSG00000004011	RP23-292J1.4	<i>2310002L09Rik</i>	RIKEN cDNA 2310002L09 gene	Absent	Encodes a 217 amino acid ORF. Transcript is very similar to 3' end of <i>Frmd</i> . No human orthologue
	OTTMUSG00000000793	<i>Frmd3</i>	<i>Frmd3</i>	FERM domain containing 3	<i>FRMD3</i>	
	OTTMUSG00000000345	<i>Jmjd2c</i>	<i>Jmjd2c</i>	jumonji domain containing 2C	<i>JMJD2C</i>	
13	OTTMUSG00000000360	RP24-200F10.1	3110001D03Rik	RIKEN cDNA 3110001D03 gene	<i>C9Orf123</i>	
14	No 5' ends					Contains protein coding

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						exons of <i>Ptprd</i>
15	No 5' ends					Contains 5' UTR exons of <i>Ptprd</i>
16	OTTMUSG00000000304	<i>Ptprd</i>	<i>Ptprd</i>	protein tyrosine phosphatase, receptor type, D	<i>PTPRD</i>	
17	No genes					
18	No genes					
19	OTTMUSG00000000391	<i>Tyrp1</i>	<i>Tyrp1</i>	Tyrosinase related protein 1	<i>TYRP1</i>	
	OTTMUSG00000000392	RP24-318C20.1	<i>D4Bwg0951e</i>	DNA segment, Chr 4, Brigham & Women's Genetics 0951 expressed	<i>C9orf150</i>	
	OTTMUSG00000000815	<i>Mpdz</i>	<i>Mpdz</i>	multiple PDZ domain protein	<i>MPDZ</i>	

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20	OTTMUSG000000003 95	<i>Nfib</i>	<i>Nfib</i>	nuclear factor I/B	<i>NFIB</i>	
21	OTTMUSG000000002 97	<i>Zdhhc21</i>	<i>Zdhhc21</i>	zinc finger, DHHC domain containing 21	<i>ZDHHC21</i>	
	OTTMUSG000000004 10	<i>Cer1</i>	<i>Cer1</i>	cerberus 1 homolog	<i>CER1</i>	
	OTTMUSG000000004 04	RP23-410K19.1	<i>Frem1</i>	Fras1 related extracellular matrix protein 1	<i>FREM1</i>	
	OTTMUSG000000000 31	RP23-17O21.2	1810054D07Rik	RIKEN cDNA 1810054D07 gene	<i>C9orf52</i>	
	OTTMUSG000000000 33	<i>Snopc3</i>	<i>Snopc3</i>	small nuclear RNA activating complex, polypeptide 3	<i>SNAPC3</i>	
	OTTMUSG000000000	<i>Psip1</i>	<i>Psip1</i>	PC4 and SFRS1	<i>PSIP1</i>	

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	34			interacting protein 1		
	OTTMUSG000000008 32	RP23-311B24.5	<i>A330015D16Rik</i>	RIKEN cDNA A330015D16 gene	<i>C9Orf93</i>	
22	OTTMUSG000000067 57	<i>Bnc2</i>	<i>Bnc2</i>	basonuclin 2	<i>BNC2</i>	