Corrected 25 May 2006, see page 3a for details.

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Supporting Online Material for

CRACM1 Is a Plasma Membrane Protein Essential for Store-Operated Ca^{2+} Entry

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This PDF file includes the following:

Materials and Methods

1. RNA interference (RNAi) screen in *Drosophila* S2R+ cells:

S2R+ cells were dispensed into the dsRNA (0.25 μg/well) containing 384-well plates, in 10 μl of serum-free Schneider's medium (Invitrogen) and incubated for 40 min After 40 min, cells were topped with 30 μl of 10% serum containing Schneider's medium and incubated for 3 days. On day 3, cells were loaded with a fluorescent Ca^{2+} indicator Fluo-4-AM in Drosophila saline for 1 hr, washed and re-suspended in Ca^{2+}-free Drosophila saline containing 0.1 mM EGTA. Each well was first imaged to determine the baseline fluorescence for 1 min. The cells were then stimulated with 2 μM thapsigargin and the resulting Ca^{2+} release due to emptying of ER stores was measured for 5 min. The buffer was then supplemented with 2 mM $CaCl_2$ and the resulting calcium influx was recorded for another 5 min.

2. Electrophysiology:

Patch-clamp experiments were performed in the tight-seal whole-cell configuration at 21-25 °C. High-resolution current recordings were acquired using the EPC-9 (HEKA). Voltage ramps of 50 ms duration spanning a range of –100 to +100 mV were delivered from a holding potential of 0 mV at a rate of 0.5 Hz over a period of 100-300 sec. All voltages were corrected for a liquid junction potential of 10 mV. Currents were filtered at 2.9 kHz and digitized at 100 μs intervals. Capacitive currents were determined and corrected before each voltage ramp. Extracting the current amplitude at -80 mV from individual ramp current records assessed the low-resolution temporal development of both currents. Where applicable, statistical errors of averaged data are given as means ± S.E.M. with n determinations. Standard external solutions were as follows (in mM): 120 NaCl, 2.8 KCl, 10 CsCl, 2 $MgCl_2$, 10 $CaCl_2$, 10 HEPES, pH 7.2 with NaOH, 300 mosm. Standard internal solutions were as follows (in mM): 120 Cs-glutamate, 8 NaCl, 10 Cs·BAPTA, 4 $CaCl_2$, 3 $MgCl_2$, 10 HEPES, 0.02 IP_3, pH 7.2 with CsOH, 300 mOsm. For some experiments $[Ca^{2+}]i$ was buffered to zero by 10 mM Cs·BAPTA. For passive-depletion experiments, the internal solution was supplemented with Cs·BAPTA in the absence of IP_3 and calcium. In some cells, 10 μM ionomycin was applied for 3 s using a wide-mouth glass pipette.

3. Preparation of dsRNA:

Primer pairs were designed according to the protocols provided by the DRSC. PCR templates for dsRNA synthesis produced ~500-bp long fragments with 5' and 3'-flanking T7 RNA polymerase-

binding sites on both sense and anti-sense strands. dsRNAs were synthesized from the templates using the MEGAscript (Ambion) kit as per the manufacturer's protocol.

4. siRNA-mediated silencing of human CRACM1 and RT-PCR:

Two CRACM1-specific siRNA sequences and one control (scrambled) sequence were designed using vector-NTI and cloned into a retroviral vector, pSUPER.retro (Oligoengine). The sequences used were siRNA#1: CGTGCACAATCTCAACTCG, siRNA#2: CTGTCCTCTAAGAGAATAA, scrambled: CACTGCATACTCAAGTCAC. The siRNA-infected cells were selected using puromycin and used for Ca^{2+} imaging and electrophysiological analyses. CRACM1 transcript levels were measured by semi-quantitative RT-PCR. Small ribosomal protein was used as a control. The three cycle numbers used were 24, 27 and 30 (Fig. 2).

5. Subcloning of CRACM1:

Full length human CRACM1 was amplified from human cDNA using Pfu Turbo (stratagene) and sub-cloned in frame with the N-term Flag tag or C-terminal myc-His tag in a pcDNA/4TO/myc-His plasmid (Invitrogen). The full-length gene was re-amplified along with the C-terminal myc-His tag and subcloned into a MIGW green fluorescent protein (GFP) retrovirus for overexpression in different cell lines.

6. Immunoprecipitation and Western blotting: Cell extracts were prepared from **t**ransiently transfected HEK cells using lysis buffer: 50 mM HEPES (pH 7.4), 150 mM NaCl, 1.5 mM $MgCl_2$, 1 mM EDTA, 1% NP-40, 10 µg/ml Aprotinin, 10 µg/ml Leupeptin, 1 mM PMSF and 1 mM DTT. Myc/His-tagged CRACM1 was immunoprecipitated using anti-myc or anti-His mouse monoclonal antibodies (Invitrogen). Proteins were resolved using SDSPAGE and analyzed using anti-myc monoclonal antibody in the Western blots.

7. Confocal Imaging:

HEK cells were transfected with Flag-CRACM1 or CRACM1-myc and 24 hours post transfection, they were fixed with 2% paraformaldehyde and either permeabilized or left intact for surface staining. Cells were immunostained with anti-FLAG M2 mouse monoclonal antibody (Sigma) or anti-myc mouse monoclonal (Invitrogen) and detected with Cy3 conjugated anti-mouse secondary antibody (Jackson Immuno). Images were captured on a Zeiss LSM 510 confocal microscope using a 25x or 100x objective lens.

This file was corrected by rewriting the sequences on page 3.

The sequences used were siRNA#1: CGTGCACAATCTCAACTCG, siRNA#2: CTGTCCTCTAAGAGAATAA, scrambled: CACTGCATACTCAAGTCAC.

Figures

Figure S1

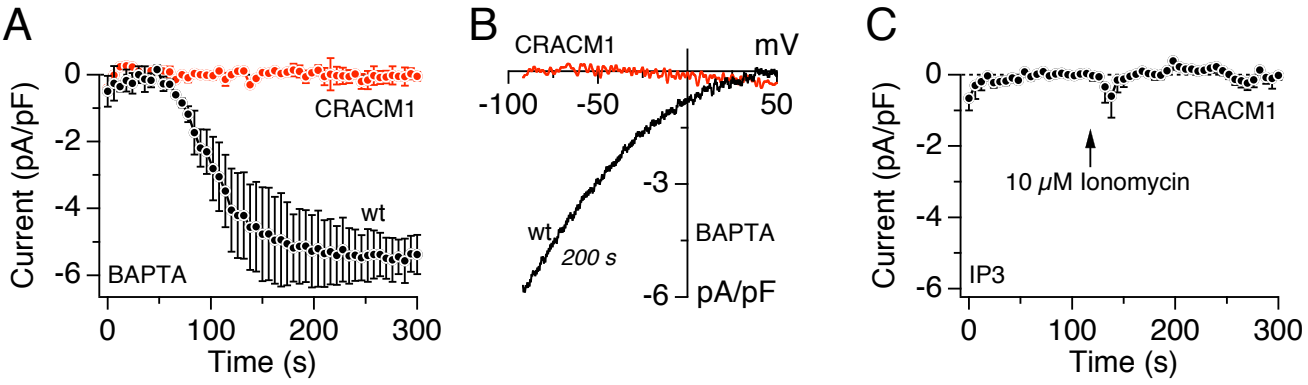

Fig. S1: Identification of CRACM1 as crucial regulators of store-operated Ca^{2+} entry in *Drosophila*, supporting data. (A) Normalized average time course of I_{CRAC} in *Drosophila* Kc cells induced by passive store depletion using 10 mM BAPTA in the pipette solution. Currents of individual cells were measured at –80 mV, normalized to cell size (pF), averaged and plotted versus time (± S.E.M.). Traces correspond to untreated control (wt; black circles, n = 4) and CRACM1 dsRNA (red circles, n = 3). (B) Average current-voltage (I/V) data traces of I_{CRAC} extracted from representative cells from panel (A) at 200 s for leak-subtracted currents evoked by 50 ms voltage ramps from –100 to +100 mV and normalized to cell size (pF). Traces correspond to passive depletion-induced I_{CRAC} obtained from untreated control cells (wt, n = 4) and CRACM1 dsRNA-treated cells (n = 3). (C) Normalized average time course of IP_3-induced (20 μM) I_{CRAC} measured in *Drosophila* Kc cells. Currents of individual cells were measured at –80 mV, normalized by their respective cell size, averaged and plotted versus time (± S.E.M.). Cytosolic calcium was clamped to 150 nM with 10 mM BAPTA and 4 mM $CaCl_2$. 10 μM ionomycin was applied for 3 s at the time indicated (n = 4).

Tables

Table S1

List of positive *Drosophila* genes with their respective scores from the primary screen. For each 384-well plate, the inhibition of Ca^{2+} influx seen with negative control dsRNA (*Rho1*) was set as 0 and that seen with the positive control dsRNA (*stim1*) was set as 100. The percent inhibition for the rest of the genes on each plate was then calculated and assigned a score between 0 and 3. The wells showing an inhibition between 0-30% were considered as negative and were scored as 0. The ones showing inhibition between 30-50% were scored as 1, 50-70% as 2 and those showing inhibition above 70% were scored as 3. The table lists the ~1,500 genes that received scores and their cumulative scores from the duplicate screens. Other columns list the human orthologs for these genes and the number of predicted off-targets effects for each dsRNA. Off-target effects are predicted by the DRSC (Drosophila RNAi Screening Center) for possible non-specific effects based on exact 21 nucleotide homology searches for each dsRNA sequence (amplicon). Positive genes with more than 5 off-target effects were either dropped or tested with an alternate amplicon in the secondary screen.

Gene	FlyBase Gene Number	Human Orthologs	Scores	Potential Off-Targets
Nhe1	FBgn0026787	SLC9A8	1	0
Uch	FBgn0010288	UCHL3	3	0
mio	FBgn0031399	FLJ20323	2	0
l(2)s5379	FBgn0010704	GOLPH3	1	0
CG3436	FBgn0031229	WDR57	2	0
CG10882	FBgn0031408	SEC24C	3	0
spen	FBgn0016977	SPEN	3	0
nrv2	FBgn0015777		5	0
CG3036	FBgn0031645		1	0
eys	FBgn0031414		1	0
Rab5	FBgn0014010	RAB5C	2	1
CG9866	FBgn0031420		1	178
Drp1	FBgn0026479	DNM1L	1	0
U2af38	FBgn0017457	U2AF1	2	0
Trip1	FBgn0015834	EIF3S2	2	0
MED15	FBgn0027592	PCQAP	1	3
CG31919	FBgn0031674	ANKRD39	2	0
Msp-300	FBgn0053715	SYNE1	1	0
CG3605	FBgn0031493	SF3B2	4	0
CG17834	FBgn0028394		3	0
alien	FBgn0013746	COPS2	2	0
SmB	FBgn0010083	SNRPB	2	0
Lrr47	FBgn0010398	PPIL5	1	0
CG18284	FBgn0043825		1	1
CG9314	FBgn0032061		1	1
CG7300	FBgn0032286		1	0
CG6415	FBgn0032287	AMT	1	0
CG6443	FBgn0032290	C20orf43	3	0

CG12750	FBgn0032678	KIAA1604	2	0
CG10413	FBgn0032689	SLC12A9	1	0
RpII33	FBgn0026373	POLR2C	3	1
CG10341	FBgn0032701	LOC92345	1	0
CG4500	FBgn0028519		2	0
osp	FBgn0003016		1	0
l(2)35Bg	FBgn0001977	CIAPIN1	1	1
CG5853	FBgn0032167		1	0
CG10563	FBgn0032760	GTF3C5	3	0
l(2)35Df	FBgn0001986	SKIV2L2	1	0
Tektin-A	FBgn0028902		1	0
aret	FBgn0000114	CUGBP2	1	1
GATAd	FBgn0032223		3	0
CG16972	FBgn0032481		2	0
CG31743	FBgn0032618	CHST11	3	0
neb	FBgn0004374		2	0
ApepP	FBgn0026150	XPNPEP1	3	0
CG10306	FBgn0034654	EIF3S12	1	0
CG9323	FBgn0032883	DHX36	1	0
cad	FBgn0000251	CDX2	3	82
CG17922	FBgn0034656	CNGB1	1	0
Pomp	FBgn0032884		5	0
HmgD	FBgn0004362		2	0
Ssrp	FBgn0010278	SSRP1	1	0
Tina-1	FBgn0035083		2	0
Fs(2)Ket	FBgn0000986	KPNB1	5	1
CG9319	FBgn0032881	AMACR	1	0
CG18506	FBgn0035079		1	0
CG6448	FBgn0032976		1	0
CycB	FBgn0000405	CCNB1	2	0
CG3262	FBgn0032986	NUBPL	1	0
CG3622	FBgn0034778		1	0
Tif-IA	FBgn0032988	RRN3	2	0
fd59A	FBgn0004896		1	1
Cht3	FBgn0022701		1	0
tamo	FBgn0041582		1	1
Dat	FBgn0019643		1	0
CG3362	FBgn0034988	NT5C3L	1	0
CG9437	FBgn0034599		1	0
CG3957	FBgn0034876	STRAP	2	0
Rrp4	FBgn0034879	EXOSC2	1	0
CG3570	FBgn0035035	FLJ31818	2	1
CG1845	FBgn0033155	BRPF1	2	0
CG3608	FBgn0035039	ADCK1	3	0
cos	FBgn0000352		1	0
Pof	FBgn0035047		1	0
dom	FBgn0020306		1	0
CG10795	FBgn0034626	TM2D1	2	0
CG5428	FBgn0034887	SULT1E1	2	1
l(2)dtl	FBgn0013548		2	0
CG30421	FBgn0050421	USP31	3	0
so	FBgn0003460	SIX1	1	253
CG9196	FBgn0035056		1	0
CG11127	FBgn0033178		1	0
CG30426	FBgn0050426	SETDB1	3	0
p47	FBgn0033179	NSFL1C	2	0

Eap	FBgn0035063		2	0
Aldh-III	FBgn0010548	ALDH3B1	2	0
dpld	FBgn0015930	LIN41	2	0
CG3589	FBgn0035065		3	0
key	FBgn0041205		2	0
CG1620	FBgn0033183	MIER1	1	0
Orc4	FBgn0023181	ORC4L	3	0
CG1603	FBgn0033185		1	0
Prosalpha6, CG30382	Prosalpha6: FBgn0026781, CG30382: FBgn0050382	PSMA6	3	0
Prosalpha7	FBgn0023175	PSMA3	5	0
Rpn6	FBgn0028689	PSMD11	2	0
ProsMA5	FBgn0016697	PSMA5	5	0
CG13900	FBgn0035162	SF3B3	1	0
mus209	FBgn0005655	PCNA	1	0
alphaCop	FBgn0025725	COPA	1	0
CG18066	FBgn0034517		1	0
CG8445	FBgn0034088	BAP1	2	0
CG8446	FBgn0034089	LIPT1	3	0
CG5098	FBgn0034300		1	1
Tsf3	FBgn0034094		2	0
Khc	FBgn0001308	KIF5B	1	1
Jhl-26	FBgn0028424		1	0
CG8060	FBgn0034113	IBTK	1	0
CG16742	FBgn0034529	FAM21B, FAM21C, LOC439977	2	0
CG12024	FBgn0035283	CUEDC1	3	0
mthl8	FBgn0052475		2	0
CG1017	FBgn0035294	MFAP1	1	0
slim	FBgn0026173	KIAA0265	1	0
CG30116	FBgn0028496		1	0
CG5335	FBgn0034365		1	0
DIP2	FBgn0024806	DIP2C	1	0
CG32304	FBgn0052304		1	0
fwd	FBgn0004373	PIK4CB	1	0
klar	FBgn0001316		3	0
CG5482	FBgn0034368	FKBP8	2	1
CG6805	FBgn0034179		3	0
CG30122	FBgn0050122	HNRPUL1	3	70
Gint3	FBgn0034372	UBXD1	1	0
CG8963	FBgn0034181	PAIP1	2	6
edl	FBgn0023214		1	0
Ark	FBgn0024252		2	0
CG18604	FBgn0034378		2	0
RhoGEF2	FBgn0023172		1	0
CG15087	FBgn0034380	C11orf2	2	0
CG9640	FBgn0034182		2	0
CG15092	FBgn0034388		1	0
CG8950	FBgn0034186	GTF3C3	3	0
CG6967	FBgn0034187		2	0
CG17090	FBgn0035142		2	141
Pxn	FBgn0011828	PXDN	2	0
CG1244	FBgn0035357		3	2
Reg-2	FBgn0016715		3	0
CG32297	FBgn0052297	RNUT1	2	0
CG12030	FBgn0035147	GALE	3	0
CG12187	FBgn0035367		2	11

CG3402	FBgn0035148		2	0
CG1240	FBgn0035370		2	2
MED30	FBgn0035149	THRAP6	2	195
CG12093	FBgn0035372		1	0
Rev1	FBgn0035150	REV1L	3	0
Atg2	FBgn0044452	KIAA0404	2	0
CG17129	FBgn0035151		3	0
pgant6	FBgn0035375	GALNT10	2	0
CG2083	FBgn0035376		3	0
CG9972	FBgn0035379		3	0
CG3279	FBgn0035156	VTI1A	1	0
CkIIalpha-i3	FBgn0025676		3	0
SRPK	FBgn0026370	SRPK1	1	0
Jheh1	FBgn0010053	EPHX1	1	1
CG8187	FBgn0034027		1	0
Vha36	FBgn0022097	ATP6V1D	1	1
E(bx)	FBgn0000541		1	0
Eip55E	FBgn0000566	CTH	1	0
MED14	FBgn0035145	CRSP2	6	1
CG7066	FBgn0035869	KIAA0256	3	0
E(z)	FBgn0000629	EZH2	1	0
CG12034	FBgn0035421	SMPD2	1	0
CG32354	FBgn0052354		1	0
Gad1	FBgn0004516	GAD1	1	0
CG5026	FBgn0035945	MTMR9	1	0
CG5068	FBgn0035951	PPME1	1	0
CG4911	FBgn0035959	FBXO33	1	0
CG14998	FBgn0035500	MAP7	1	1
RfC40	FBgn0015287	RFC2	1	0
mas	FBgn0011653	CTRL	1	0
VhaM9.7-1	FBgn0028664		1	0
ImpL2	FBgn0001257		1	0
CG14997	FBgn0035515	SQRDL	1	0
CG5718	FBgn0036222	SDHAL2	2	0
eIF-4E	FBgn0015218		2	1
CG8042	FBgn0027554	UBXD2	2	1
RpS9	FBgn0010408	RPS9	4	0
CG3306	FBgn0036016		2	0
Ect4	FBgn0035835		1	0
CG4769	FBgn0035600	CYC1	1	0
CG10625	FBgn0035612		1	1
defl	FBgn0036038	C1orf73	2	0
Ent3	FBgn0036319	SLC29A4	4	0
ATPsyn-b	FBgn0019644	ATP5F1	4	0
CG11261	FBgn0036332		2	0
CG8177	FBgn0036043	SLC4A3	2	0
MICAL-like	FBgn0036333		1	0
RpS12	FBgn0014027	RPS12	5	0
CG6718	FBgn0036053	PLA2G6	4	0
CG10171	FBgn0036353	TMEM19	1	0
CG10191	FBgn0036354	WDR51A	2	0
Ard1	FBgn0036064	ARD1A	2	0
CG1271	FBgn0035392	MGC40579	3	0
CG5150	FBgn0035620	ALPL	2	0
CG16753	FBgn0035393		1	0
CG10591	FBgn0035621		2	0

CG32486	FBgn0052486		2	3
Sse	FBgn0035627		3	0
CG11486	FBgn0035397	PAN3	2	1
CG1869	FBgn0035398	CHIT1	2	0
prominin-like	FBgn0026189	PROM1	1	0
CG10576	FBgn0035630	PA2G4	1	0
CG11537	FBgn0035400	HIAT1	1	0
PGRP-LD	FBgn0035635		3	0
CG14956	FBgn0035403		2	0
CG10542	FBgn0035637	RNF40	2	0
CG8023	FBgn0035860		2	0
CG7207	FBgn0027569	COL4A3BP	2	0
CG32055	FBgn0052055		1	0
CG7188	FBgn0035871	TEGT	1	0
CG7185	FBgn0035872	CPSF6	3	0
Bj1	FBgn0002638	RCC1	3	0
CG10472	FBgn0035670		1	3
CG6327	FBgn0036115	SLC36A4	1	0
Oseg1	FBgn0035891	IFT122	1	0
CG6321	FBgn0036117		3	0
CG6983	FBgn0035896		1	0
JIL-1	FBgn0020412	RPS6KA5	2	0
Trn	FBgn0024921	TNPO1	1	2
CG10226	FBgn0035695		1	0
SP1173	FBgn0035710		2	0
CG1079	FBgn0026592		2	0
Cdc27	FBgn0012058	CDC27	4	1
CG4641	FBgn0035967		1	1
CycA	FBgn0000404	CCNA2	2	0
CG5645	FBgn0036254	FLJ12949	3	0
nAcRbeta-64B	FBgn0000038	CHRNA4	2	0
CG12262	FBgn0035811	ACADM	3	0
CG32245	FBgn0052245	STOM	1	389
Hn	FBgn0001208	PAH	3	0
Rpd3	FBgn0015805	HDAC2	3	0
CG32369	FBgn0052369		2	2
pbl	FBgn0003041	ECT2	1	0
CG7509	FBgn0035575	SLITRK6	1	0
Rh50	FBgn0028699	RHBG	1	0
CG10672	FBgn0035588	DHRS4	1	0
Gen	FBgn0027914	FLJ40869	2	0
CdsA	FBgn0010350	CDS2	1	0
CG6674	FBgn0036063		1	0
nxf2	FBgn0036640		2	0
CG9028	FBgn0036389		1	1
CG8783	FBgn0036397	C16orf35	2	0
CG9007	FBgn0036398		2	25
Pros26	FBgn0002284	PSMB1	5	0
Taf6	FBgn0010417	TAF6	2	0
Sox21b	FBgn0042630		2	406
CG7924	FBgn0036416		1	1
CG7730	FBgn0036689		2	0
Rpn1	FBgn0028695	PSMD2	3	0
CG10510	FBgn0037059		4	0
Aats-ile	FBgn0027086	IARS	2	0
Snap	FBgn0011712	NAPA	4	0

ran-like	FBgn0036497		3	0
CG7275	FBgn0036500	WDSOF1	2	0
CG7945	FBgn0036505	BAG2	2	0
Ssl1	FBgn0037202	GTF2H2	2	0
CG11133	FBgn0037205		2	0
Mes2	FBgn0037207		2	0
alpha-Cat	FBgn0010215	CTNNA2	2	0
Las	FBgn0029158	LIAS	2	0
auxillin	FBgn0037218	GAK	2	0
Pitslre	FBgn0016696		2	1
th	FBgn0003691		6	0
CG3961	FBgn0036821	ACSL1	3	0
CG6836	FBgn0036834		2	0
Cont	FBgn0037240	CNTN3	3	0
CG9855	FBgn0037242		2	1
CG14648	FBgn0037245		2	0
CG31523	FBgn0051523	ELOVL1	4	0
CG10508	FBgn0037060		2	0
CG1078	FBgn0037255		2	0
5-HT2	FBgn0013743	HTR2B	3	0
AcCoAS	FBgn0012034	ACSS2	3	0
CG9775	FBgn0037261		3	0
ppl	FBgn0027945	GCSH	2	0
Z4	FBgn0037066		2	0
Rab26	FBgn0037072	RAB37	3	17
CG6014	FBgn0027542	LOC283767, LOC440233, LOC440243, LOC440247, LOC440318, LOC440320	3	0
tacc	FBgn0026620		3	0
CG6049	FBgn0037081	HTATSF1	2	0
atms	FBgn0010750	PAF1	2	0
noi	FBgn0014366	SF3A3	5	0
Prosbeta3	FBgn0026380	PSMB3	4	0
Rrp6	FBgn0038269	EXOSC10	4	0
CycC	FBgn0004597	CCNC	1	0
sle	FBgn0037810		1	0
UbcD6	FBgn0004436	UBE2A	1	0
cno	FBgn0000340	MLLT4	2	538
CG31284	FBgn0051284		1	0
CG1115	FBgn0037299	VPS37B	2	0
Mms19	FBgn0037301	MMS19L	3	0
Prat	FBgn0004901	PPAT	1	0
CG10233	FBgn0037302	C10orf83	3	0
CG2846	FBgn0014930	RFK	3	0
CG12163	FBgn0037303	CTSF	2	0
CG17184	FBgn0037884	ARFIP2	1	0
scpr-B	FBgn0037888		1	2
flfl	FBgn0024555	SMEK2	1	0
PGRP-LB	FBgn0037906	PGLYRP2	1	0
CG9611	FBgn0028487	LRRC40	2	0
CG6782	FBgn0037912		2	0
CG9307	FBgn0038180		1	0
CG6782	FBgn0037912		1	0
CG9297	FBgn0038181	SRL	2	3
CG9288	FBgn0038182	C9orf6	2	0
CG12000	FBgn0037314	PSMB4	2	0
kkv	FBgn0001311		1	0

RpA-70	FBgn0010173	RPA1	2	0
CG9925	FBgn0038191		1	0
RpII140	FBgn0003276	POLR2B	3	0
osk	FBgn0003015		2	0
CG6962	FBgn0037958	FLJ20297	1	0
CG6752	FBgn0038296	RNF123	1	0
tws	FBgn0004889		1	0
Rpb7	FBgn0051155	POLR2G	2	0
Sra-1	FBgn0038320	CYFIP2	1	0
CG5044	FBgn0038326	HIBCH	3	0
CG8774	FBgn0038136		2	0
Atx2	FBgn0041188	ATXN2	1	395
CG6015	FBgn0038927	CDC40	3	0
CG16941	FBgn0038464	SF3A1	4	0
CG10562	FBgn0039326		1	0
CG11837	FBgn0039627	HSA9761	1	0
Fur1	FBgn0004509	FURIN	1	0
CG11842	FBgn0039629		2	1
XNP	FBgn0039338	ATRX	1	0
CG1746	FBgn0039830	ATP5G3	5	0
CG12114	FBgn0039837		3	0
Vha100-1	FBgn0028671	ATP6V0A1	4	0
Rpn2	FBgn0028692	PSMD1	3	0
CG1774	FBgn0039856		1	0
CG14801	FBgn0024988		1	126
CG6073	FBgn0039417	C8orf30A	2	0
Bub3	FBgn0025457	BUB3	2	0
Gycalpha99B	FBgn0013972	GUCY1A2	1	1
CG2165	FBgn0025704	ATP2B3	5	0
crn	FBgn0000377	CRNKL1	2	0
CG13360	FBgn0025620		1	0
Rbf	FBgn0015799	RBL1	1	2
CG10675	FBgn0039328		2	0
rha	FBgn0027376		3	0
CG11874	FBgn0039634	MAN1B1	2	0
CG14786	FBgn0027794		3	0
CG12054	FBgn0039831		3	187
l(1)G0431	FBgn0028274	LSG1	2	0
CG1750	FBgn0039836	MTFMT	3	0
O-fut2	FBgn0027791		3	0
CG1607	FBgn0039844		3	0
Rab27	FBgn0025382	RAB27A	3	0
CG11509	FBgn0029584		2	0
stg	FBgn0003525	CDC25B	2	0
CG32809	FBgn0023531	KIAA1217	1	0
deltaCOP	FBgn0028969	ARCN1	3	0
CG14804	FBgn0014411	VPS26B	1	7
CG1971	FBgn0039881		1	0
bigmax	FBgn0039509	MLX	3	0
toy	FBgn0019650	PAX6	2	0
Ork1	FBgn0017561	KCNK16	4	0
CG11092	FBgn0027537		4	0
Crag	FBgn0025864	DENND4A	3	0
RpII215	FBgn0003277	POLR2A	5	0
CG1703	FBgn0030321		2	0
Stim	FBgn0045073	STIM1	4	0

CG6903	FBgn0029737	TMEM76	1	1
CG2263	FBgn0030007	FARSLA	1	1
CG2186	FBgn0030243		2	1
CG33174	FBgn0053174	C11orf11	1	0
CG9400	FBgn0030562		1	0
Rab-RP4	FBgn0015794	RAB18	4	0
Caf1-180	FBgn0030054		1	2
Spt6	FBgn0028982	SUPT6H	4	0
CG3918	FBgn0029873	P18SRP	2	136
CG12106	FBgn0030100		2	0
CG17754	FBgn0030114	KLHL5	2	0
RpS28b	FBgn0030136	RPS28	2	0
CG4615	FBgn0029935	MMD	2	0
pcm	FBgn0020261	XRN1	1	0
Nup153	FBgn0061200	NUP153	1	0
CG33525	FBgn0053525	RCOR3	2	0
CG4991	FBgn0030817		1	0
CG8675	FBgn0030834	C9orf85	2	0
Fim	FBgn0024238	PLS3	3	0
S6kII	FBgn0011285	RPS6KA3	2	0
Rab35	FBgn0031090	RAB35	4	0
CG4829	FBgn0030796	GGT1, LOC440152, LOC440802	4	0
Zw	FBgn0004057	G6PD	1	0
wus	FBgn0030805	FLJ13236	2	0
CG2807	FBgn0031266	SF3B1	6	0
RpS5a	FBgn0002590	RPS5	4	0
CG15429	FBgn0031596	CYB5D1	2	0
CG17219	FBgn0031494	C1orf156	3	0
CG17258	FBgn0031496		2	0
H15	FBgn0016660	TBX20	2	1
CG13982	FBgn0031811		1	0
CG14020	FBgn0031707		1	0
CG15434	FBgn0040705	NDUFA2	1	0
E23	FBgn0020445		1	1
His3.3A	FBgn0014857	H3F3A, LOC440926	3	1
CG3921	FBgn0031571		3	0
Rpn11	FBgn0028694	PSMD14	4	0
Oatp26F	FBgn0051634	SLCO4A1	2	0
Sr-CIV	FBgn0031547		1	1
CG15415	FBgn0031549		3	0
hoe2	FBgn0031649		2	0
Sgs1	FBgn0003372		1	0
CG9200	FBgn0031876	ZZZ3	2	0
CG10399	FBgn0031877	HMGCL	1	0
SP1070	FBgn0031879		1	0
CG13779	FBgn0040954		2	0
CG4567	FBgn0031898	GFM1	1	0
Shaw	FBgn0003386		1	0
CG5828	FBgn0031682	PANK4	3	1
CG9222	FBgn0031784	TSSK4	1	0
Wnt10	FBgn0031903	WNT10A	1	0
CG13990	FBgn0040950		1	0
CG5160	FBgn0031906		2	0
CG13989	FBgn0031786		1	0
CG31640	FBgn0051640		3	0
Ugt37b1	FBgn0026755		2	0

CG6630	FBgn0031921	DOCK9	3	0
fred	FBgn0051774		1	0
CG14034	FBgn0031691		2	0
CG15422	FBgn0031579		1	3
ed	FBgn0000547		1	0
CG12512	FBgn0031703	FLJ20920	2	0
Ddr	FBgn0053531	DDR2	3	0
Pbprp5	FBgn0011283		3	1
Ddr	FBgn0053531	DDR2	3	0
Rapgap1	FBgn0053529	RAP1GA1	3	0
CG13984	FBgn0031796		3	0
CG13790	FBgn0040955		3	0
CG13791	FBgn0031923		3	0
Gef26	FBgn0021873	RAPGEF2	2	0
Spn7	FBgn0083141	SERPINB5	2	0
CG6739	FBgn0031926		1	0
CG9498	FBgn0031801		2	0
ppk7	FBgn0031802		3	0
Myo28B1	FBgn0040299		2	0
CG7025	FBgn0031930	CPA5	2	0
CG9500	FBgn0031804	ANGPTL2	1	0
slam	FBgn0043854		2	0
TepII	FBgn0041182	CD109	2	0
CG13981	FBgn0031807		1	0
TepIII	FBgn0041181		1	0
Pros35	FBgn0003151	PSMA1	4	0
CG13795	FBgn0031937		3	0
Acp1	FBgn0014454		1	1
CG7211	FBgn0031941		3	0
CG9465	FBgn0032067		2	0
CG9468	FBgn0032069		3	0
CG14538	FBgn0031943		2	0
CG7196	FBgn0031944		2	0
CG7191	FBgn0031945		1	0
CG32988	FBgn0052988		1	0
CG7179	FBgn0020880		3	12
CG15867	FBgn0040961		3	24
Uro	FBgn0003961	LOC391051	3	0
CG9487	FBgn0032073		1	0
CG17108	FBgn0032285		3	3
Trp1	FBgn0011584	TLOC1	3	1
Lip1	FBgn0023496		3	0
Lip2	FBgn0024740		1	0
CG33301	FBgn0053301		1	3
Nup170	FBgn0027868	NUP107	2	0
CG6737	FBgn0032294		2	0
hoip	FBgn0015393	NHP2L1	6	0
CG6043	FBgn0032497		3	338
CR15280	FBgn0028867		1	1
CG17331	FBgn0032596	PSMB2	3	0
CG15278	FBgn0032554		2	0
Mhc	FBgn0002741	MYH6	2	0
CG6766	FBgn0032398	C2orf30	2	0
CG5317	FBgn0032404		1	0
CG14946	FBgn0032405		1	0
CG17928	FBgn0032603		1	0

CG6583	FBgn0032420		2	0
CG7180	FBgn0032673		6	0
fzy	FBgn0001086	CDC20	6	0
Acp36DE	FBgn0011559		1	0
RpS26	FBgn0004413	RPS26	1	0
Or33a	FBgn0026392		2	0
CG15639	FBgn0032502		5	37
Nnp-1	FBgn0022069	D21S2056E	1	0
CG17905	FBgn0032598		3	0
RpL24	FBgn0032518	RPL24	1	0
CG13280	FBgn0032609		3	0
CG13272	FBgn0032607		3	0
CG13282	FBgn0032612		2	0
CG9263	FBgn0032530		3	0
yuri	FBgn0045842		1	0
adat	FBgn0028658	ADAT1	2	0
Tim17b2	FBgn0020371	TIMM17A	3	0
CG5043	FBgn0032636		1	1
CG11864	FBgn0028944		1	0
ref2	FBgn0032439		2	0
CG8997	FBgn0028920		2	0
CG15485	FBgn0032442		3	0
cenG1A	FBgn0028509	CENTG2	1	0
pdm2	FBgn0004394	POU2F2	3	0
Ance-2	FBgn0032535		3	0
Acyp	FBgn0025115		3	0
CG15142	FBgn0032645		1	0
CG6870	FBgn0032652		2	1
CG9932	FBgn0032469		2	0
CG5142	FBgn0032470	FLJ30990	3	0
wb	FBgn0004002	LAMA1	2	0
CG18125	FBgn0028917		2	0
CG5204	FBgn0032473		3	0
CG12455	FBgn0028859		1	0
CG17329	FBgn0028896		2	0
CG17681	FBgn0032668		1	0
CG31746	FBgn0051746	DPEP2	3	0
Ski6	FBgn0032487	EXOSC4	1	0
pburs	FBgn0032546		1	0
CG5867	FBgn0027586		3	0
CG12636	FBgn0028854		2	0
CG5861	FBgn0015338	NIFIE14	3	0
cni	FBgn0000339	CNIH	5	0
CG4440	FBgn0040984		3	0
CG15157	FBgn0032675		3	68
CG4580	FBgn0032585		3	0
CG13260	FBgn0032589		3	310
CG4631	FBgn0032590		3	0
CG10211	FBgn0032685		3	0
CG10343	FBgn0032703	RWDD4A	3	0
CG33316	FBgn0032826		3	16
Grip71	FBgn0032705		3	0
nompB	FBgn0016919	IFT88	1	0
Glycogenin	FBgn0034603		2	0
CG31619	FBgn0051619	ADAMTSL3	2	1
CG31619	FBgn0051619	ADAMTSL3	1	0

Grp1	FBgn0032960	PSCD1	1	0
CG10348	FBgn0032707		1	54
ham	FBgn0045852	EVI1	1	0
CG10730	FBgn0032843		1	1
Dox-A2	FBgn0000486	PSMD3	4	0
His2B:CG17949	FBgn0061209	HIST2H2BE	4	0
CG17347	FBgn0032761	DCTN6	4	0
RpL21	FBgn0032987	RPL21	4	0
CG2617	FBgn0032877		4	1
qkr58E-2	FBgn0022985		4	3
RpL12	FBgn0034968		5	1
RpL39	FBgn0023170		5	0
CG30410	FBgn0050410	RPIA	2	0
CG4269	FBgn0034741		2	0
CG13550	FBgn0034853		5	1
gus	FBgn0026238	SPSB1	2	0
CG3136	FBgn0033010	ATF6	2	0
CG14470	FBgn0033046		4	0
CG10384	FBgn0034731		1	18
CG4324	FBgn0034956	SVOP	2	0
CG12851	FBgn0035086		1	0
gsb	FBgn0001148	PAX7	2	0
CG13568	FBgn0034965		2	0
eIF-5A	FBgn0034967	EIF5A	1	0
CG30416	FBgn0050416		1	0
CG11362	FBgn0034737		2	0
CG3927	FBgn0034739		1	5
CG3500	FBgn0034849	TEX261	1	0
RpS16	FBgn0034743	RPS16	3	0
CG11079	FBgn0034851	MTHFS	1	0
Cdk9	FBgn0019949	CDK9	1	0
bonsai	FBgn0026261		1	2
Cyp6d2	FBgn0034756		1	1
Mov34	FBgn0002787	PSMD7	4	0
Vha16	FBgn0004145	ATP6V0C	2	0
CG15908	FBgn0033085		4	0
Lcp9	FBgn0025578		1	0
CG12822	FBgn0033229		2	0
CG12821	FBgn0040780		1	0
Spn1	FBgn0028988		2	0
CG30350	FBgn0050350		1	0
CG30349	FBgn0050349	WDR43	1	0
CG30349	FBgn0050349	WDR43	1	0
CG30160, Tsp42Eb	CG30160: FBgn0050160, Tsp42Eb: FBgn0042086		1	0
CG8230	FBgn0027607	DYM	1	0
CG12825	FBgn0033221		3	0
CG1513	FBgn0033463	OSBPL9	3	0
CG33558	FBgn0053558	LOC92154	1	324
CG12842	FBgn0033131		1	1
slv	FBgn0025469	RAG1AP1	4	0
CG12836	FBgn0033140		3	0
CG12912	FBgn0033497		3	536
Pabp2	FBgn0005648	PABPN1	3	0
Prosbeta5	FBgn0029134	PSMB5	4	0
CG18343	FBgn0033683		1	0
CG13941	FBgn0033928		1	0

Obp50e	FBgn0033931		1	0
CG10104	FBgn0033933	REN	1	0
DebB	FBgn0000426	SNRPF	1	1
CG13222	FBgn0033602		2	128
Cam	FBgn0000253	CALM2	4	0
CG8632	FBgn0033762	SLC30A9	2	0
dup	FBgn0000996	CDT1	3	0
mRpL18	FBgn0026741	MRPL18	2	0
MCPH1	FBgn0033664		3	0
CG30469	FBgn0050469		2	0
CG30089	FBgn0050089		3	544
CG30460	FBgn0050460		1	225
CR14499	FBgn0034317		2	0
Spt5	FBgn0040273	SUPT5H	2	0
eIF3-S9	FBgn0034237	EIF3S9	2	0
RpS15	FBgn0034138	RPS15	2	1
RpS18	FBgn0010411	RPS18	2	0
bab1	FBgn0004870		2	1
CG12361	FBgn0035292		2	16
zormin	FBgn0052311		3	0
CG15822	FBgn0035308	SESTD1	1	0
Klp61F	FBgn0004378	KIF11	3	2
yellow-g2	FBgn0035328		2	0
RpL38	FBgn0040007		1	0
pUf68	FBgn0028577	SIAHBP1	2	1
Spn	FBgn0010905		3	0
RpL8	FBgn0024939	RPL8	3	0
CG14952	FBgn0035377		1	6
CG15004	FBgn0035505		2	0
pfk	FBgn0035405		1	0
CG13712	FBgn0035570		4	0
CG32406	FBgn0052406		1	0
CG33274	FBgn0035864		3	1
CG7465	FBgn0035551		2	3
CG6596	FBgn0035671		3	0
CG13295	FBgn0035674	C3orf23	2	0
unc-13-4A	FBgn0035756	BAIAP3	3	233
Srp19	FBgn0015298	SRP19	2	1
CG18779	FBgn0042120		2	3
CG18779, Lcp65Ag1, Lcp65Ag2	CG18779: FBgn0042120, Lcp65Ag1: FBgn0020638, Lcp65Ag2: FBgn0020637		2	0
CG6915	FBgn0035898	RP3-477H23.1	2	6
CG6694	FBgn0035900		3	0
CG6662	FBgn0035907		2	0
RpL14	FBgn0017579	RPL14	4	0
CG32365	FBgn0052365		3	556
CG8111	FBgn0035825	TMEM43	4	0
CG8268	FBgn0035827		2	0
CG5651	FBgn0035946	ABCE1	5	0
mus301	FBgn0002899	HEL308	2	0
RpS17	FBgn0005533	RPS17	2	0
CG3891	FBgn0035993	NFYA	2	213
CG14135	FBgn0036193		4	0
CG32037	FBgn0052037		2	0
CG3408	FBgn0036008	LRRC59	2	0
CG32070	FBgn0052070		4	0

klu	FBgn0013469		4	0
CG7264	FBgn0036214	RIBC2	2	0
CG14118	FBgn0036323		4	0
CG5906	FBgn0036217		2	0
CG14128	FBgn0036218		2	0
RpS4	FBgn0011284	RPS4X	2	0
CG14115	FBgn0036343		2	0
CG6175	FBgn0036152		2	2
CG32105	FBgn0052105	LMX1A	2	302
CG8072	FBgn0036070		2	0
CG8065	FBgn0036075		2	0
CG32056	FBgn0052056	PLSCR1	2	0
CG10660	FBgn0036288		4	0
vih	FBgn0027936	UBE2C	3	1
CG6053	FBgn0036195	DNAI2	4	0
CG14132	FBgn0040817		2	0
CG14180	FBgn0036003		1	1
path	FBgn0036007		4	0
CG14148	FBgn0040821		2	274
CG14130	FBgn0036210	ALKBH7	4	0
CG5946	FBgn0036211	CYB5R2	2	0
RpL10Ab	FBgn0036213	RPL10A	3	0
CG12520	FBgn0036324		2	0
CG14129	FBgn0036216		2	5
CG14127	FBgn0036219	MGC20983	2	0
CG5897	FBgn0036220		2	0
mRpL20	FBgn0036335	MRPL20	2	0
CG14126	FBgn0036223		2	0
CG5883	FBgn0036225		2	0
SRm160	FBgn0036340	SRRM1	2	0
alphaTub67C	FBgn0004236		2	1
CG6767	FBgn0036030	PRPS2	2	0
CG6938	FBgn0036235	TMEM16E	2	0
trn	FBgn0010452		2	0
Grip163	FBgn0026432		2	0
rols	FBgn0041096	TANC2	2	0
CG14168	FBgn0036044		2	1
llp1	FBgn0044051		2	0
Atg12	FBgn0036255		2	0
l(3)neo18	FBgn0011455	NDUFB5	2	0
CG9760	FBgn0036259		2	0
Est-P	FBgn0000594		2	0
CG32130	FBgn0052130		2	1
CG10083	FBgn0036372	DBNL	2	0
CG10741	FBgn0036373		2	1
CG17689	FBgn0036374		4	461
eyg	FBgn0000625		4	189
CG33983	FBgn0053983		2	0
CG7427	FBgn0036510	DCUN1D1	3	0
Or74a	FBgn0036709		3	0
CG13040	FBgn0036608		1	0
CG4753	FBgn0036622	AGPAT4	2	0
mib1	FBgn0036558	MIB1	2	0
Prestin	FBgn0036770	SLC26A5	4	0
Lasp	FBgn0063485	LASP1	2	7
gk	FBgn0020300		2	0

cp309	FBgn0036472		2	0
CG4174	FBgn0036793		2	0
ome	FBgn0002997	FAP	5	0
CG13465	FBgn0040809		2	1
brm	FBgn0000212	SMARCA4	4	0
zetaCOP	FBgn0040512	COPZ1	2	0
Lmpt	FBgn0036672	FHL2	2	0
CG13050	FBgn0036591		2	0
in	FBgn0001259	PDZD6	2	0
CG32206	FBgn0052206		2	1
Qm	FBgn0024733	LOC284393	2	0
CG17715	FBgn0041004		2	0
CG11451	FBgn0037025		3	0
CG12001	FBgn0037265		2	0
Ac78C	FBgn0024150	ADCY8	2	0
CG14187	FBgn0036938		2	0
CG14077	FBgn0036830		1	0
CG7017	FBgn0036951		1	0
CG17145	FBgn0036953		1	0
CG3819	FBgn0036833		4	0
CG17147	FBgn0036954		1	0
CG14075	FBgn0036835		1	0
CG13813	FBgn0036956		2	0
CG11619	FBgn0036836		2	0
CG6951	FBgn0036959	DCTD	2	0
CG3808	FBgn0036838	HTF9C	5	0
CG18136	FBgn0036839		3	0
rdgC	FBgn0004366	PPEF2	2	0
CG14455	FBgn0037175		1	0
CG11310	FBgn0037067		2	0
CG12546	FBgn0037178		1	3
Edg78E	FBgn0000551		1	0
CG7658	FBgn0037069		2	0
CG7632	FBgn0037071		1	0
Rab26	FBgn0037072	RAB37	2	0
SPoCk	FBgn0052451	ATP2C1	1	2
CG32227	FBgn0052227		3	0
CG14079	FBgn0036849		1	0
CG6597	FBgn0036967	DCUN1D4	1	0
CG5585, CG6434	CG5585: FBgn0036973, CG6434: FBgn0036972	RBBP5	1	0
rept	FBgn0040075	RUVBL2	1	0
CG14084	FBgn0036855		1	0
CG5665	FBgn0036977		1	0
CG12971	FBgn0037078		1	2
CG32437	FBgn0052437		1	0
sa	FBgn0002842		2	0
CG9299	FBgn0036881		1	0
kni	FBgn0001320		4	256
CG14568	FBgn0037124		2	0
CG33286	FBgn0053286		1	0
skd	FBgn0003415	THRAP2	4	0
RpLP0	FBgn0000100	RPLP0	1	0
CG31530	FBgn0051530		1	5
CG14659	FBgn0037284		2	0
Gnf1	FBgn0004913	RFC1	3	0
RpII18	FBgn0003275	POLR2F	4	0

Pcmt	FBgn0015276		3	0
Ccp84Ae	FBgn0004779		1	0
Madm	FBgn0027497	NRBP1	2	0
alphaTub84B	FBgn0003884	LOC112714	4	2
CG10280	FBgn0037395	LOC440890	2	1
MAGE	FBgn0037481		1	0
CG14608	FBgn0037487		3	0
CG9667	FBgn0037550	KIAA1160	2	1
pyd	FBgn0003177	TJP1	1	0
CG11985	FBgn0040534	SF3B5	5	0
CG18228	FBgn0037560		2	0
CG10050, Pbprp4	Pbprp4: FBgn0011282, CG10050: FBgn0037492		2	0
Osi5	FBgn0037413		1	0
Osi7	FBgn0037414		2	0
Ada	FBgn0037661	ADAL	3	0
ato	FBgn0010433		3	0
CG11672	FBgn0037563		1	0
CG8420	FBgn0037664		1	0
Gfr	FBgn0037567	SLC35C1	2	0
dpr16	FBgn0037295		1	0
CG12173	FBgn0037305	MASA	1	0
eIF4AIII	FBgn0037573	DDX48	4	1
Mst84Dc	FBgn0004174		3	0
Mst84Da	FBgn0004172		2	0
HP1e	FBgn0037675		3	0
MICAL	FBgn0053208		1	2
CG12951	FBgn0037677		2	1
MICAL	FBgn0053208		2	0
CG16749	FBgn0037678		1	1
CG3909	FBgn0027524	WDR61	1	0
CG8866	FBgn0037679	SCAMP2	3	0
CG11722	FBgn0037777	C6orf66	2	0
CG8121	FBgn0037680		3	0
mtTFB2	FBgn0037778		2	0
CG33936	FBgn0053936	ZA20D3	1	0
CG33936	FBgn0053936	ZA20D3	3	0
CG18473	FBgn0037683	PTER	1	0
CG12812	FBgn0037781		3	0
Ugt86Di	FBgn0040251		1	0
Ugt86Dc	FBgn0040257	UGT1A1	3	0
CG14741	FBgn0037989	ATP8B2	2	0
CG4757	FBgn0027584		1	0
Ugt86Dg	FBgn0040253		2	0
dpr17	FBgn0051361		1	0
Ugt86De	FBgn0040255		2	0
dpr15	FBgn0037993		1	0
CG18577	FBgn0037870		2	0
CG10014	FBgn0038000		1	0
CG8135	FBgn0037689	LMBRD2	2	0
CG31477	FBgn0051477		1	0
l(3)IX-14	FBgn0002478	LMLN	1	0
RpL3	FBgn0020910	RPL3	2	0
Cyp313a3	FBgn0038007		2	0
CG17187	FBgn0037882	DNAJC17	1	0
svp	FBgn0003651		2	309
CG10041	FBgn0038014		1	0

mura	FBgn0037705		1	165
CG5270	FBgn0037897		2	0
CG31352, unc-115	CG31352: FBgn0051352, unc-115: FBgn0037733	ABLIM1	4	0
Pros25	FBgn0010405	PSMA2	4	0
CG11598	FBgn0038067		1	0
RpS29	FBgn0037752		1	0
CG12279	FBgn0038080		2	0
CG4683	FBgn0037857		3	0
CG33975	FBgn0053975		2	0
CG12419	FBgn0037769		2	2
CG6629	FBgn0037860		1	0
Ugt86Dd	FBgn0040256		3	0
Hsp70Bb, Hsp70Aa, Hsp70Bc, Hsp70Ba, Hsp70Ab, Hsp70Bbb	Hsp70Bb: FBgn0013278, Hsp70Aa: FBgn0013275, Hsp70Ba: FBgn0013277, Hsp70Ab: FBgn0013276, Hsp70Bc: FBgn0013279, Hsp70Bbb: FBgn0051354	HSPA2	2	0
CG18547	FBgn0037973		1	0
Tk	FBgn0037976		1	0
CG14387	FBgn0038089		2	0
CG10909	FBgn0038090		3	0
CG31358	FBgn0051358		3	0
beat-Vb	FBgn0038092		3	0
betaTub85D	FBgn0003889	TUBB2B	2	3
CG17738	FBgn0038009		2	0
CG3996	FBgn0037800		2	1
dmt	FBgn0016792		3	0
CG5844	FBgn0038049		4	0
alphaTub85E	FBgn0003886	TUBA3	3	3
spn-B	FBgn0003480	XRCC3	2	0
CG5829	FBgn0038520		2	22
CG18496	FBgn0038329		2	1
RpII15	FBgn0004855	POLR2I	2	0
abd-A	FBgn0000014		2	379
His4r	FBgn0013981	HIST1H4I	4	0
CG18208	FBgn0038653		1	0
CG14298	FBgn0038654		2	0
CG14297	FBgn0038655		3	0
CG31249	FBgn0051249		1	0
pxt	FBgn0038538		3	0
Atg8b	FBgn0038539	GABARAPL1	3	1
Fsh	FBgn0016650	FSHR	3	0
CG14292	FBgn0038658		2	0
CG14321	FBgn0038540		3	0
CG17836	FBgn0038661		1	35
CG7431	FBgn0038542		2	0
CG7397	FBgn0038543	ARHGEF17	2	0
AP-2sigma	FBgn0043012	AP2S1	2	0
tin	FBgn0004110		1	0
CG7907	FBgn0038887		2	0
CG4362	FBgn0038784		1	0
CG7785	FBgn0038564	C13orf1	1	0
RpS30	FBgn0038834	FAU	2	0
NP15.6	FBgn0027785		2	0
CG12347	FBgn0038558		2	0
sqz	FBgn0010768		4	0

att-ORFA, att-ORFB	att-ORFA: FBgn0067783, att-ORFB: FBgn0067782	MGC26694	2	0
CG5466	FBgn0038815		2	408
RpS20	FBgn0019936	RPS20	4	0
eIF-3p66	FBgn0040227	EIF3S7	2	0
msi	FBgn0011666		2	0
CG17622	FBgn0038998		4	457
Hmgcr	FBgn0001205	HMGCR	4	0
CG31121	FBgn0051121		2	0
CG7031	FBgn0039027		2	357
RpS27	FBgn0039300	RPS27	4	0
CG31158	FBgn0051158	PSD3	2	84
CG13822	FBgn0039098		2	0
CG12250	FBgn0039345		3	0
tankyrase	FBgn0027508	TNKS2	1	0
RpL27	FBgn0039359	RPL27	2	0
Nup98	FBgn0039120	NUP98	2	0
CG11781	FBgn0039259	TMEM93	2	0
CG6422	FBgn0039261	YTHDF3	4	0
Mpk2	FBgn0015765	MAPK14	2	0
CG5677, Acp95EF	CG5677: FBgn0039172, Acp95EF: FBgn0002863	SPCS3	2	0
mask	FBgn0043884		2	4
RpS3	FBgn0002622	RPS3	4	0
CG5402	FBgn0039521		3	0
scrib	FBgn0026178	SCRIB	2	0
Klp98A	FBgn0004387	C20orf23	4	0
CG6478	FBgn0039436		3	9
CG6452	FBgn0039438		2	0
CG6460	FBgn0039439		3	16
CG5471	FBgn0039440		2	0
CG11882	FBgn0039642		2	0
RpS7	FBgn0039757	LOC387907	4	0
CecA1	FBgn0000276		1	1
Ef1gamma	FBgn0029176	EEF1G	3	2
Ets98B	FBgn0005659		4	1
CG5566	FBgn0039550		1	0
CG5017	FBgn0039553		3	0
Obp99a	FBgn0039678		1	0
Or98b	FBgn0039582		2	0
RpS8	FBgn0039713	RPS8	2	0
Sox100B	FBgn0024288	SOX9	2	0
janA	FBgn0001280	PHPT1	2	0
CG14240	FBgn0039435		3	0
raps	FBgn0040080	GPSM2	1	0
CG5639	FBgn0039527		2	0
CG5612	FBgn0039529		1	0
CG31080	FBgn0051080		2	0
CG12428	FBgn0039543	CROT	1	0
CG18110	FBgn0039677		2	0
CG5521	FBgn0039466	GARNL1	2	0
wts	FBgn0011739	LATS1	2	563
CG1420	FBgn0039626	SLU7	4	1
l(1)sc	FBgn0002561		1	0
CG12710	FBgn0040630		1	0
CG18275	FBgn0029523		1	2
gammaCop	FBgn0028968	COPG	1	0

CG18273	FBgn0029525		1	0
rod	FBgn0003268		1	0
CG18166	FBgn0029526		1	2
CG1638	FBgn0039855		1	0
CG2854	FBgn0040391		1	0
Ilp6	FBgn0044047		1	0
phl	FBgn0003079	BRAF	2	2
png	FBgn0000826		3	0
CG14770	FBgn0029573		1	0
CG14045	FBgn0040387		1	69
mod(r)	FBgn0016038		2	0
CG11550	FBgn0039864		2	0
ttk	FBgn0003870		2	0
CG13364	FBgn0026879	CCDC72	2	0
CG17829	FBgn0025635	MIZF	1	1
CG13367	FBgn0025634	GATAD1	1	0
trol	FBgn0001402		1	0
sta	FBgn0003517	LOC388524	4	0
wds	FBgn0040066	WDR5	4	0
CG32815	FBgn0052815		1	0
sphinx	FBgn0039931		4	1
ng4	FBgn0010296		2	0
CG32021	FBgn0052021		1	1
CG14052	FBgn0029606		2	1
dnc	FBgn0000479	PDE4D	2	0
pcx	FBgn0003048	PCNX	1	0
ase	FBgn0000137		1	0
CG17778	FBgn0023534		2	0
RpL36	FBgn0002579		3	0
CG14781	FBgn0026871		2	0
krz	FBgn0040206	ARRB1	2	0
per	FBgn0003068		2	0
mus81	FBgn0040347	MUS81	2	0
CG16903	FBgn0040394	CCNL1	4	0
activin-beta	FBgn0024913		2	0
ATPsyn-beta	FBgn0010217	ATP5B	3	0
CG11382	FBgn0040367		2	0
CG16756	FBgn0029765		3	0
Rpt4	FBgn0028685	PSMC6	2	0
RpL7A	FBgn0014026	RPL7A	4	0
dx	FBgn0000524		2	1
CG32758	FBgn0052758	SNX27	2	0
CG15771	FBgn0029801	NANP	2	0
sdt	FBgn0003349	MPP5	2	106
Trf2	FBgn0026758	TBPL1	2	0
CG15930	FBgn0029754		1	0
AlstR	FBgn0028961		1	0
CG11700	FBgn0029856		6	3
CG18624	FBgn0029971		2	0
RpS14a	FBgn0004403		3	1
RpS14b	FBgn0004404		2	1
CG32776	FBgn0052776		4	123
CG15777	FBgn0029781		1	0
cv	FBgn0000394	TWSG1	4	0
CG33080	FBgn0053080		2	0
CG15767	FBgn0029809		1	0

CG12179	FBgn0025388		2	1
CG14431	FBgn0029922		2	8
CG4068	FBgn0029738	FAM60A	1	0
Ca-alpha1T	FBgn0029846		1	0
CG18155	FBgn0029945	LOC197322	1	0
CheA7a	FBgn0029948		2	0
CG11369	FBgn0029951		1	0
CG12689	FBgn0029952		2	0
ct	FBgn0004198		1	4
CG3774	FBgn0029849	SLC35B4	1	0
CG15465	FBgn0029746		1	0
CG3585	FBgn0023458	DMXL2	1	0
Spx	FBgn0015818	SF3B4	2	1
CG3323	FBgn0029750		2	0
Lag1	FBgn0040918	LASS5	1	0
CG15785	FBgn0040913		2	0
Lag1	FBgn0040918	LASS5	1	0
Cdk7	FBgn0015617	CDK7	2	1
CG3566	FBgn0029854		2	0
Lim1	FBgn0026411	CNOT10	1	540
Hira	FBgn0022786	HIRA	2	0
CG10648	FBgn0030067	RBM13	1	2
CG15352	FBgn0040930		1	0
Tom40	FBgn0016041	TOMM40	3	0
CG12660	FBgn0030069		2	4
CG1402	FBgn0029962	CA10	1	0
CG12661	FBgn0030071		2	0
CG10920	FBgn0029963		2	0
CG1409	FBgn0029964		2	0
CG15364	FBgn0030075		2	0
CG4040	FBgn0030076	NOSTRIN	3	0
CG15324	FBgn0029966		2	0
CG7267	FBgn0030079		2	0
CG15327	FBgn0029967		2	0
CG15306	FBgn0030191		3	0
fh	FBgn0030092	FXN	2	0
CG12057	FBgn0030098		1	0
CG32683	FBgn0052683		2	4
CG4661	FBgn0030429		1	0
CG15740	FBgn0030340		3	281
ATP7	FBgn0030343	ATP7A	1	0
rad	FBgn0003193		1	0
Hex-A	FBgn0001186	HK2	4	1
CG17333	FBgn0030239	PGLS	3	0
CG3099	FBgn0030145	HECW2	2	0
CG1637	FBgn0030245	FLJ16165	2	0
l(1)G0232	FBgn0028341	PTPN9	2	4
CG15207	FBgn0030248		2	298
l(1)G0232	FBgn0028341	PTPN9	1	1
CG11203	FBgn0030249		3	0
CG15321	FBgn0030150		2	2
btd	FBgn0000233		1	0
CG32670	FBgn0052670		3	0
CG32698	FBgn0052698		5	0
CG16922	FBgn0030254		2	176
Myo10A	FBgn0030252	MYO15A	3	0

CG10353	FBgn0030349		1	0
CG32645	FBgn0052645		2	0
CG2453	FBgn0030460	COQ5	2	0
comt	FBgn0000346	NSF	4	1
CG9691	FBgn0030160		1	0
CG15250	FBgn0030165		1	1
RpS15Aa, RpS15Ab	RpS15Aa: FBgn0010198, RpS15Ab: FBgn0033555		4	0
CG2989	FBgn0030171	CHI3L2	1	0
CG15201	FBgn0030272		3	0
Yp1	FBgn0004045		2	0
ran	FBgn0020255	RAN	5	0
CG32685	FBgn0052685		2	0
antdh	FBgn0026268		3	1
CG1394	FBgn0030277		1	9
CG2974	FBgn0030178	APOA1BP	1	0
CG12645	FBgn0030181		2	1
CG32635	FBgn0052635		3	1
CG15753	FBgn0030491		2	519
Ten-a	FBgn0004446	ODZ3	1	0
CG15732	FBgn0030385		1	0
CG32632	FBgn0052632	TPST1	2	1
CG12624	FBgn0030284		2	0
CG15308	FBgn0040941		3	0
sisA	FBgn0003411		3	0
lpod	FBgn0030187		2	0
l(1)10Bb	FBgn0001491	BUD31	1	0
Hk	FBgn0001203	KCNAB1	3	11
CG1657	FBgn0030286	GAPVD1	3	2
CG12643	FBgn0040942		3	1
alpha-Man-I	FBgn0010338	MAN1A2	2	0
CG1738	FBgn0030291		1	0
CG2909	FBgn0030189		2	0
CG2574	FBgn0030386		2	0
CG32632	FBgn0052632	TPST1	3	320
Pkcdelta	FBgn0030387	PRKCD	2	0
BthD	FBgn0030501		2	0
NFAT	FBgn0030505		3	1
CG15927	FBgn0030389		3	0
Lig4	FBgn0030506	LIG4	3	0
CG15731	FBgn0030390		3	0
CG11164	FBgn0030507	FLJ11712	3	0
Rab40	FBgn0030391	RAB40C	3	0
CG15760	FBgn0030508		3	0
CG17788	FBgn0030392		3	133
CG11162	FBgn0030509		3	0
CG15926	FBgn0062447		2	0
CG11158	FBgn0030511		1	0
Lsp1alpha	FBgn0002562		2	2
CG32628	FBgn0052628		2	0
CG15730	FBgn0030395		2	0
mus101	FBgn0002878	TOPBP1	1	0
CG2556	FBgn0030396		3	83
g	FBgn0001087	AP3D1	1	0
CG4004	FBgn0030418		2	0
CG15296	FBgn0030215		2	0
CG32703	FBgn0052703	MAPK15	2	1

CG17446	FBgn0030121	CXXC1	2	0
CG32705	FBgn0052705		2	2
sbr	FBgn0003321	NXF1	5	0
Hsc70-3	FBgn0001218	HSPA5	5	2
CG32699	FBgn0052699	AYTL2	5	0
regucalcin	FBgn0030362		2	1
Rpt3	FBgn0028686	PSMC4	2	3
l(1)G0230	FBgn0028342	ATP5D	5	0
CG10993	FBgn0030524		3	0
CG6227	FBgn0030631	DDX46	2	0
cngl	FBgn0029090		4	3
Dsp1	FBgn0011764	HMGB1	5	283
CG32560	FBgn0052560		4	481
RpS19a	FBgn0010412		4	0
CG17209	FBgn0030687	POLR3A	2	0
dpr18	FBgn0030723		2	0
CG15056	FBgn0030918		2	0
CG32547	FBgn0052547		2	0
Top1	FBgn0004924	TOP1	3	0
CG10996	FBgn0030525		2	0
CG9123	FBgn0030629	PAK1IP1	3	1
CG33174	FBgn0053174	C11orf11	1	0
CG32626	FBgn0052626	AMPD2	1	0
Pp1-13C	FBgn0003132		4	4
CG32626	FBgn0052626	AMPD2	3	0
CG12432	FBgn0030843		2	4
ppk23	FBgn0030844		1	0
CG4301	FBgn0030747	ATP11B	1	0
CG6294	FBgn0030640		1	0
CG6299	FBgn0030641		1	0
CG11068	FBgn0030536		2	0
CG12454	FBgn0040870		4	509
CG6308	FBgn0030645	ALG14	1	0
CG9203	FBgn0030646	C1orf124	1	0
CG6340	FBgn0030648	FLJ11021	2	1
Pp2B-14D	FBgn0011826	PPP3CB	3	1
CanA-14F	FBgn0030758	PPP3CA	1	13
CG13014	FBgn0030759		1	1
CG8188	FBgn0030863	UBE2S	2	0
crl	FBgn0015374	UBE2G2	2	0
CG15643	FBgn0030654	C12orf49	1	0
CG15645	FBgn0030657		1	2
l(1)G0007	FBgn0026713	DHX38	2	0
mRpL38	FBgn0030552	MRPL38	1	0
mRNA-capping-enzyme	FBgn0030556	RNGTT	3	0
CG8117	FBgn0030663		1	0
CG9742	FBgn0030765	SNRPG	1	0
CG6762	FBgn0030876	SRXN1	2	0
r	FBgn0003189	CAD	1	0
CG13010	FBgn0030770		1	0
mRpS25	FBgn0030572	MRPS25	2	0
CG5321	FBgn0030575	BBOX1	1	0
CG5347	FBgn0030578	MKRN4	1	0
CG13004	FBgn0030797		1	0
CycD	FBgn0010315	CCND2	5	5
Eo	FBgn0030597		1	0

CG9030	FBgn0030599		2	0
hiw	FBgn0030600	MYCBP2	1	6
CG5548	FBgn0030605	NDUFB7	1	0
CG33177	FBgn0053177		1	0
CG5004	FBgn0030820		2	0
rab3-GEF	FBgn0030613	MADD	2	0
RpL37a	FBgn0030616	RPL37	1	0
CG5172	FBgn0030830		1	7
CG12997	FBgn0030831		2	0
CG10597	FBgn0030832		2	4
Rad51D	FBgn0030931		2	0
CG8664	FBgn0030836		1	0
B-H2	FBgn0004854		3	380
CG12994	FBgn0040877		1	0
phm	FBgn0004959		3	0
CG12531	FBgn0031064	SLC7A14	2	0
Cyp18a1	FBgn0010383	CYP2U1	3	0
Bap	FBgn0010380	AP1B1	2	0
CG14234	FBgn0031065	MGC99813	3	0
Cyp308a1	FBgn0030949		3	0
CG18809	FBgn0042132		3	1
CG33932	FBgn0066303	MGC14327	3	0
CCKLR-17D1	FBgn0030950	CCKBR	2	0
CG32528	FBgn0052528	PARVB	3	0
CG12534	FBgn0031068	GFER	3	0
CG12609	FBgn0030952		2	0
CG12703	FBgn0031069	ABCD3	4	0
Hlc	FBgn0001565	DDX56	2	0
CG10918	FBgn0031178		1	2
CCKLR-17D3	FBgn0030954	CCKAR	1	2
amn	FBgn0000076		2	0
CG32529	FBgn0052529		2	0
CG7322	FBgn0030968	DCXR	2	0
CG7349	FBgn0030975		4	0
CG32541	FBgn0052541		2	50
His2B:CG17949	FBgn0061209	HIST2H2BE	6	0
His3:CG31613	FBgn0051613	HIST1H3D	6	1
fu	FBgn0001079		2	0
CG6873	FBgn0030951		4	0
CG7274	FBgn0030965	ARID4B	1	0
CG33254	FBgn0040887		1	0
CG32499	FBgn0052499		1	0
Pp4-19C	FBgn0023177	PPP4C	2	1
cactin	FBgn0031114		1	0
RhoGAP18B	FBgn0030986		2	0
RhoGAP1A	FBgn0025836		1	0
Nep3	FBgn0031081	ECE1	1	0
CG17003	FBgn0031082	C6orf134	1	0
D2R	FBgn0053517	DRD3	3	0
CG15455	FBgn0031121	RUNX2	2	158
CG14193	FBgn0030994		1	0
CG7914	FBgn0030995		1	0
CG15453	FBgn0031123		1	4
CG14194	FBgn0030996	FAM11A	2	0
CG14195	FBgn0030998		1	0
CG11692	FBgn0031125		1	0

CG7876	FBgn0031000	HCG22	2	0
Cyp6v1	FBgn0031126		3	0
CG7884	FBgn0031001		3	2
CG1835	FBgn0031127		3	0
hydra	FBgn0031128		2	0
CG7890	FBgn0031005	HS3ST3B1	3	0
shakB	FBgn0003037		1	0
rictor	FBgn0031006	RICTOR	3	0
CG9570	FBgn0031085		2	0
CG9571	FBgn0031086		1	0
CG12656	FBgn0031087		2	0
CG9577	FBgn0031092	ECH1	2	0
LysB, LysC, LysD	LysB: FBgn0004425, LysC: FBgn0004426, LysD: FBgn0004427	LYZ	2	4
kl-5	FBgn0001315		3	0
Pp4-19C	FBgn0023177	PPP4C	3	1
mRpS14	FBgn0044030	MRPS14	2	0
CG12203	FBgn0031021	NDUFS4	2	0
His2A:CG31618	FBgn0051618	H2AFJ	3	2
CG14200	FBgn0031023		2	542
bves	FBgn0031150	POPDC2	1	0
CG12231	FBgn0031026		1	0
CG32532	FBgn0052532		1	689
Tao-1	FBgn0031030	TAOK1	2	0
CG15446	FBgn0031155		2	0
CG14204	FBgn0031032		2	0
CG33670	FBgn0064123		2	0
His4:CG31611	FBgn0051611	HIST1H4D	3	0
CG17162	FBgn0039944		1	0
CG17162	FBgn0039944		3	0
CG17169	FBgn0040514		2	0
CG17168	FBgn0039943		3	0
CG17163	FBgn0039942		2	0
CG14220	FBgn0031036	LOC285647	2	0
Shawn	FBgn0031039		2	0
Tim9b	FBgn0027358		1	0
CG32521	FBgn0052521		1	1
CG14221	FBgn0031042		3	0
CG14212	FBgn0031045		2	0
CG14580	FBgn0040646		3	0
CG14213	FBgn0031047	RQCD1	1	0
CG14214	FBgn0031049	SEC61G	3	1
CG14581	FBgn0040645		1	0
CG1801	FBgn0031171		2	0
CG40146	FBgn0039941		2	0
RpL15	FBgn0028697		2	0
Rab21	FBgn0039966		2	0
CG31938	FBgn0051938	EXOSC3	2	0
toc	FBgn0015600		2	0
Sgs1	FBgn0003372		2	0
CG31973	FBgn0051973		3	122
CG31907	FBgn0051907		3	0
Bsg	FBgn0011219		6	0
CG13784	FBgn0031897		2	0
CG31906	FBgn0051906		3	0
Wnt4	FBgn0010453		2	6

CG6232	FBgn0032252		2	0
CG31866, CG31865	CG31866: FBgn0051866, CG31865: FBgn0051865	TADA1L	2	0
aret	FBgn0000114	CUGBP2	1	6
bru-2	FBgn0043904	CUGBP1	2	0
yuri	FBgn0045842		4	0
CG31769	FBgn0051769		1	0
nAcRalpha-34E	FBgn0028875	CHRNA7	3	0
CG5953	FBgn0032587		2	0
CG31816	FBgn0051816		3	0
CG40072	FBgn0040017		1	0
CG31815	FBgn0051815		3	0
squ	FBgn0002652		1	0
CG31789	FBgn0051789		1	1
CG32970	FBgn0052970		1	408
CG31809	FBgn0051809		1	2
CG32832	FBgn0052832		3	0
CG31784	FBgn0051784		1	0
CG31785	FBgn0051785		1	0
CG4168	FBgn0028888		2	6
CG31787	FBgn0051787		2	0
CG31700	FBgn0051700		1	2
His-Psi:CR31616, His-Psi:CR31615	His-Psi:CR31615: FBgn0051615, His-Psi:CR31616: FBgn0051616		2	2
cta, CG40005	cta: FBgn0000384, CG40005: FBgn0058005		1	0
CG9865	FBgn0034649	PIGM	2	0
CG30285	FBgn0050285		2	0
Cyp6t2Psi	FBgn0041336		1	0
CG30404	FBgn0050404		3	0
CG9896	FBgn0034808		2	0
CG30290	FBgn0050290	PPCDC	2	0
ptc	FBgn0003892	PTCH	3	0
CG30356	FBgn0050356		3	0
CG30158	FBgn0050158		3	0
CG30157	FBgn0050157		1	0
CG30156	FBgn0050156		2	0
CG30438	FBgn0050438	UGT2A1	2	0
CG30411	FBgn0050411		3	1
CG33199, CG8229	CG8229: FBgn0033356, CG33199: FBgn0053199		3	0
Tom7	FBgn0033357		3	0
CG4763	FBgn0034910		2	0
CG11406	FBgn0034990		3	0
CG3894	FBgn0035059	NEURL2	2	0
CG30423	FBgn0050423		2	0
CG30424	FBgn0050424		3	0
CG30383	FBgn0050383		2	0
CG30338	FBgn0050338	C21orf6	2	0
CG30440	FBgn0050440		1	0
cmp44E	FBgn0025937	KIAA0953	4	0
CG30438	FBgn0050438	UGT2A1	1	0
CG30413	FBgn0050413		4	0
CG30415	FBgn0050415		5	0
esn	FBgn0028642		5	0
ltd	FBgn0002567	RAB32	1	0

Obp50d	FBgn0050074		1	0
Poxn	FBgn0003130		2	0
CG30076	FBgn0050076		1	0
CG30085	FBgn0050085		1	0
CG30476	FBgn0050476		2	0
stan	FBgn0024836	CELSR1	1	148
CG30061	FBgn0050061		1	0
CG30015	FBgn0050015		1	0
CG30470	FBgn0050470		2	97
E(Pc)	FBgn0000581		4	0
CG30325	FBgn0050325		2	0
Strn-Mlck	FBgn0013988		3	0
CG8405	FBgn0034071		3	2
CG14494	FBgn0040740		3	358
CG8446	FBgn0034089	LIPT1	3	0
CG30100	FBgn0050100	FLJ38663	3	0
CG30098	FBgn0050098		2	0
par-1	FBgn0026193	MARK3	3	281
CG30151	FBgn0050151		3	1
CG30154	FBgn0050154		3	0
sm	FBgn0003435	HNRPL	3	0
Obp57e	FBgn0050145		3	0
CG30114	FBgn0050114		3	2
CG33550	FBgn0053550		3	1
CG33459	FBgn0053459		3	0
pen-2	FBgn0053198	PSENEN	4	0
CG40188	FBgn0058188		2	0
CG30126	FBgn0050126		4	281
CG30108	FBgn0050108		2	0
CG30109	FBgn0050109		2	0
CG30127	FBgn0050127		1	1
CG30143	FBgn0050143		3	91
CG33229	FBgn0053229		2	1
CG32404	FBgn0052404		4	0
CG32298	FBgn0052298		2	0
CG32409	FBgn0052409	RRS1	2	0
CG32247	FBgn0052247		1	0
CG32246	FBgn0052246		2	1
Or65a	FBgn0041625		1	0
CG33265	FBgn0053265		2	0
CG32048	FBgn0052048		3	467
Pdp1	FBgn0016694	HLF	3	587
CG40315	FBgn0058315		1	1
CG33274	FBgn0035864		1	1
Tsp68C	FBgn0043550		4	0
CG32111	FBgn0052111		1	0
CG40413	FBgn0058413		1	0
CG6151	FBgn0036533		1	130
CG32150	FBgn0052150		2	0
Pka-C3	FBgn0000489	PRKX	2	0
HGTX	FBgn0040318	NKX6-1	1	0
CG32118	FBgn0052118		2	0
CG32185	FBgn0052185		1	0
sens	FBgn0002573		1	273
bru-3	FBgn0036379		1	2
nAcRalpha-80B	FBgn0037212		1	0

CG31523	FBgn0051523	ELOVL1	1	0
CG32350	FBgn0052350		2	0
Cdep	FBgn0051536	FARP2	1	0
CG8135	FBgn0037689	LMBRD2	2	0
mRpS9	FBgn0037529	MRPS9	1	0
CG31352	FBgn0051352	ABLIM1	1	1
CG31556	FBgn0051556		2	1
Fps85D	FBgn0000723	FER	1	0
CG32856	FBgn0052856		1	0
CG40188	FBgn0058188		1	0
dpr15	FBgn0037993		4	0
MESK4, CG31274	CG31274: FBgn0051274, MESK4: FBgn0043069		1	0
foxo	FBgn0038197	FOXO3A	3	430
CG31533	FBgn0051533		1	0
Men	FBgn0002719	ME1	2	1
beat-Vc	FBgn0038084		5	0
pxb	FBgn0053207		2	0
CG31446	FBgn0051446		3	0
CG31461	FBgn0051461		2	19
CG40413	FBgn0058413		1	0
CG31292	FBgn0051292		1	1
CG31262	FBgn0051262		2	0
CG18208	FBgn0038653		1	0
CG31077	FBgn0051077		2	1
beat-VII	FBgn0039447		2	0
amon	FBgn0023179	PCSK2	1	0
CG31115	FBgn0051115		2	0
CG31050	FBgn0051050		1	0
aralar1	FBgn0028646	SLC25A12	4	0
spdo	FBgn0011716		2	1
dpr7	FBgn0053481		1	0
CG2165	FBgn0025704	ATP2B3	2	0
futsch	FBgn0015390	MAP1A	1	0
MED26	FBgn0039923		2	0
CG12650	FBgn0040932		2	42
CG32679	FBgn0052679		1	0
CG32642	FBgn0052642		1	0
CG32669	FBgn0052669	SLC5A8	1	0
CG32644	FBgn0052644		2	0
CG32643	FBgn0052643		2	0
CG32638	FBgn0052638		2	0
CG32637	FBgn0052637		2	0
mew	FBgn0004456	ITGA7	1	0
CG32639	FBgn0052639		1	0
CG32667	FBgn0052667		2	0
CG32668	FBgn0052668	ARMC2	1	0
CG11105	FBgn0030281	KCNIP3	4	0
CG3847	FBgn0029867		4	0
CG7990	FBgn0030997		2	0
Sh	FBgn0003380	KCNA2	4	408
CG32553	FBgn0052553		2	0
CG32507	FBgn0052507		2	0
CG32606	FBgn0052606		4	345
sw	FBgn0003654	DYNC1I2	4	0
CG32547	FBgn0052547		1	0
CG11230	FBgn0031137		1	0

CG40337	FBgn0058337		1	0
kl-5	FBgn0001315		2	0
CG40098	FBgn0058098		1	0
CG31640	FBgn0051640		1	0
CG30412	FBgn0050412		1	1
CG15157	FBgn0032675		2	68
bs	FBgn0004101		3	296
fs(1)h	FBgn0004656	BRD3	1	0
CG15635	FBgn0031617		1	0
Spn7	FBgn0083141	SERPINB5	1	0
so	FBgn0003460	SIX1	1	253
Dyb	FBgn0033739	DTNA	1	0
CG7967	FBgn0035251	C6orf55	1	0
CG32062	FBgn0052062		2	462
RpL32	FBgn0002626	RPL32	4	0
CG33980	FBgn0053980		2	269
CG4136	FBgn0029775		2	379
CG15345	FBgn0040928		2	0
CG9817	FBgn0030219		3	395
Syx8	FBgn0036643	STX8	1	0
CG18294, CG32213, CG32214, 825-Oak	825-Oak: FBgn0052208, CG18294: FBgn0036873, CG32214: FBgn0052214, CG32213: FBgn0052213		2	8
CG6784	FBgn0039074		1	0
Cyp6d2	FBgn0034756		2	1
RpL22	FBgn0015288	RPL22	2	1
Hr4	FBgn0023546		1	281
mol	FBgn0028528	NIP	4	0
CG5532	FBgn0034902	TMEM14C	1	0
Atf-2	FBgn0050420	ATF2	1	0
l(2)03709	FBgn0010551	PHB2	2	0
Shaw	FBgn0003386		4	0
CG40127	FBgn0058127		2	0
RpL37a	FBgn0030616	RPL37	1	0
CG11617	FBgn0031232		2	0
CG40143	FBgn0058143		2	0
CG17450, CG32819, CG32820	CG32820: FBgn0052820, CG17450: FBgn0040028, CG32819: FBgn0052819	TEKT3	1	0
CG17377	FBgn0031859		2	0
CG30089	FBgn0050089		1	344
CG7709	FBgn0038642		2	0
CG18482	FBgn0028891		2	0
Pk92B	FBgn0014006	MAP3K15	3	0
Rtnl1	FBgn0053113	RTN4	1	0
CG32710	FBgn0052710		1	325
CG6631	FBgn0039206		1	0
swm	FBgn0002044	C13orf10	2	0
Klp98A	FBgn0004387	C20orf23	2	0
dpr3	FBgn0053516		4	535
Acp98AB	FBgn0013745		1	0
CG31875	FBgn0051875		1	0
CG15204	FBgn0030256		1	1
CG8677, CG31626	CG8677: FBgn0026577, CG31626: FBgn0051626	HBXAP	2	3
CG31704	FBgn0051704		2	0
CG12928	FBgn0033432		2	0

CG31880	FBgn0051880		1	86
CG31958	FBgn0051958		2	2
RanGap	FBgn0003346	RANGAP1	2	0
Mio	FBgn0032940		1	0
vas	FBgn0003970	DDX4	1	0
CG31908	FBgn0051908		1	49
CG30188	FBgn0050188		1	296
CG30161	FBgn0050161		2	0
CG30058	FBgn0050058		1	0
CG31677	FBgn0051677		1	0
CG32024	FBgn0052024		2	0
Mmp2	FBgn0033438	MMP17	1	1
roX1	FBgn0019661		1	0
CG32982	FBgn0052982		1	0
CG32353	FBgn0052353		1	0
CG32834	FBgn0052834		1	0
CG40400	FBgn0058400		1	0
CG18554	FBgn0038060		2	0
CG33528	FBgn0053528	SLC18A2	1	0
CG33170	FBgn0053170		1	0
Eap	FBgn0035063		1	0
CG32937	FBgn0052937		1	0
RpLP0	FBgn0000100	RPLP0	2	0
CG6066	FBgn0039488	NKAP	2	0
CG30174	FBgn0050174		2	0
betaTry	FBgn0010357		1	6
Dgk	FBgn0004568	DGKB	2	116
CG11666	FBgn0040648		2	0
CG31499	FBgn0051499		3	0
CG30320	FBgn0050320		1	0
Aly	FBgn0010774	THOC4	2	0
Hr4	FBgn0023546		2	281
RpLP1	FBgn0002593	RPLP1	4	4
gfzf	FBgn0053546		5	0
olf186-F	FBgn0041585	FLJ14466	6	0
RpL18	FBgn0035753	RPL18	4	0
caps	FBgn0023095	LRRN5	4	0
ptr	FBgn0003159		2	0
CG30197	FBgn0050197		2	0
CG7638	FBgn0036133	MGC33214	5	0
Dr	FBgn0000492		4	0
CG18599	FBgn0038592		4	221
tlk	FBgn0026698		4	0
CG33467	FBgn0053467		1	0
CG12158	FBgn0040775		4	0
CG32275	FBgn0052275		4	0
CG32448	FBgn0052448		4	0
Corin	FBgn0033192		1	0
CG4670	FBgn0033814	QSCN6	1	0
CG31640	FBgn0051640		1	0
CG33128	FBgn0053128		1	0
CG15479	FBgn0032493		1	0
CG31612	FBgn0051612		2	0
CG7713	FBgn0038545		2	0
RpL22	FBgn0015288	RPL22	2	1
CG3927	FBgn0034739		1	1

CG14650	FBgn0037252		1	4
zfh1	FBgn0004606	TCF8	4	108
trpl	FBgn0005614		1	0
CG17341	FBgn0028906		4	1
Dr	FBgn0000492		2	0
RhoGEF3	FBgn0035128	ARHGEF9	4	0
ced-6	FBgn0029092	GULP1	4	0
CG8360	FBgn0032001	CDA	1	0
CG31163	FBgn0051163	CXorf9	1	0
CG13159	FBgn0033721		6	0
CG1102	FBgn0027930		4	0
CG18367	FBgn0034460		4	0
tacc	FBgn0026620		3	0
CG5142	FBgn0032470	FLJ30990	2	0
CG3726	FBgn0029824		2	171
CG31772	FBgn0051772		2	4
CG17343	FBgn0032751		2	0
CG7214	FBgn0031940		3	0
CG32521	FBgn0052521		2	1
CG14453	FBgn0037179		2	2
CG13949	FBgn0031288		2	1
caz	FBgn0011571	FUS	2	30
Hex-t2	FBgn0042710	HK1	2	0
CG32652	FBgn0052652		2	1
CG2678	FBgn0014931		2	0
Mst98Ca	FBgn0002865		4	0
CG12825	FBgn0033221		4	0
CG7379	FBgn0038546	ING2	3	1
Rrp1	FBgn0004584	APEX1	4	0
CG2006	FBgn0039664	DTWD1	2	0
CG7611	FBgn0037094	WDR26	4	0
Gp150	FBgn0013272		4	0
CG12853	FBgn0040747		3	0
Tkr	FBgn0003715		4	3
CG31523	FBgn0051523	ELOVL1	4	0
CG15166	FBgn0032708		1	0
CG15489	FBgn0032438		2	0
CG16777	FBgn0037694		3	0
CG13717	FBgn0035562		2	0
Bx	FBgn0000242	LMO3	3	0

Table S2

List of genes screened in a secondary single cell patch-clamp assay. Two of the genes (*olf186-F* = CRACM1 and *dpr3* = CRACM2) reproducibly inhibited I_{CRAC} by more than 70% in *Drosophila* Kc cells. All other genes were either completely ineffective, or inhibited on average less than 30% of I_{CRAC}.

Gene	FlyBase Gene Number	Human Orthologs	Potential Off-targets	Alternate amplicon tested
nrv2	FBgn0015777	nervana2	0	No
CG3605	FBgn0031493	SF3B2	0	No
Snap	FBgn0011712	NAPA	0	No
CG16941	FBgn0038464	SF3A1	0	No
Ork1	FBgn0017561	KCNK16	0	No
Fim	FBgn0024238	PLS3	0	No
CG2807	FBgn0031266	SF3B1	0	No
CG13550	FBgn0034853		1	No
Spn	FBgn0010905		0	No
CG8111	FBgn0035825	TMEM43	0	No
CG5651	FBgn0035946	ABCE1	0	No
Prestin	FBgn0036770	SLC26A5	0	No
ome	FBgn0002997	FAP	0	No
brm	FBgn0000212	SMARCA4	0	No
skd	FBgn0003415	THRAP2	0	No
sbr	FBgn0003321	NXF1	0	No
Bsg	FBgn0011219		0	No
dpr15	FBgn0037993		0	No
beat-Vc	FBgn0038084		0	Yes
aralar1	FBgn0028646	SLC25A12	0	No
CG11105	FBgn0030281	KCNIP3	0	No
mol	FBgn0028528	NIP	0	No
Shaw	FBgn0003386		0	No
dpr3	FBgn0053516		535	Yes
olf186-F	FBgn0041585	FLJ14466	0	No
CG32448	FBgn0052448		0	No
Bx	FBgn0000242	LMO3	0	No