



## Supporting Online Material for

### CRACM1 Is a Plasma Membrane Protein Essential for Store-Operated Ca<sup>2+</sup> Entry

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## Materials and Methods

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

S2R+ cells were dispensed into the dsRNA (0.25  $\mu\text{g}/\text{well}$ ) containing 384-well plates, in 10  $\mu\text{l}$  of serum-free Schneider's medium (Invitrogen) and incubated for 40 min. After 40 min, cells were topped with 30  $\mu\text{l}$  of 10% serum containing Schneider's medium and incubated for 3 days. On day 3, cells were loaded with a fluorescent  $\text{Ca}^{2+}$  indicator Fluo-4-AM in *Drosophila* saline for 1 hr, washed and re-suspended in  $\text{Ca}^{2+}$ -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  $\mu\text{M}$  thapsigargin and the resulting  $\text{Ca}^{2+}$  release due to emptying of ER stores was measured for 5 min. The buffer was then supplemented with 2 mM  $\text{CaCl}_2$  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  $\mu\text{s}$  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  $\pm$  S.E.M. with  $n$  determinations. Standard external solutions were as follows (in mM): 120 NaCl, 2.8 KCl, 10 CsCl, 2  $\text{MgCl}_2$ , 10  $\text{CaCl}_2$ , 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  $\text{CaCl}_2$ , 3  $\text{MgCl}_2$ , 10 HEPES, 0.02  $\text{IP}_3$ , pH 7.2 with CsOH, 300 mOsm. For some experiments  $[\text{Ca}^{2+}]_i$  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  $\text{IP}_3$  and calcium. In some cells, 10  $\mu\text{M}$  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 transiently 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  $\mu$ g/ml Aprotinin, 10  $\mu$ g/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 SDS-PAGE and analyzed using anti-myc monoclonal antibody in the Western blots.

#### **7. Confocal Imaging:**

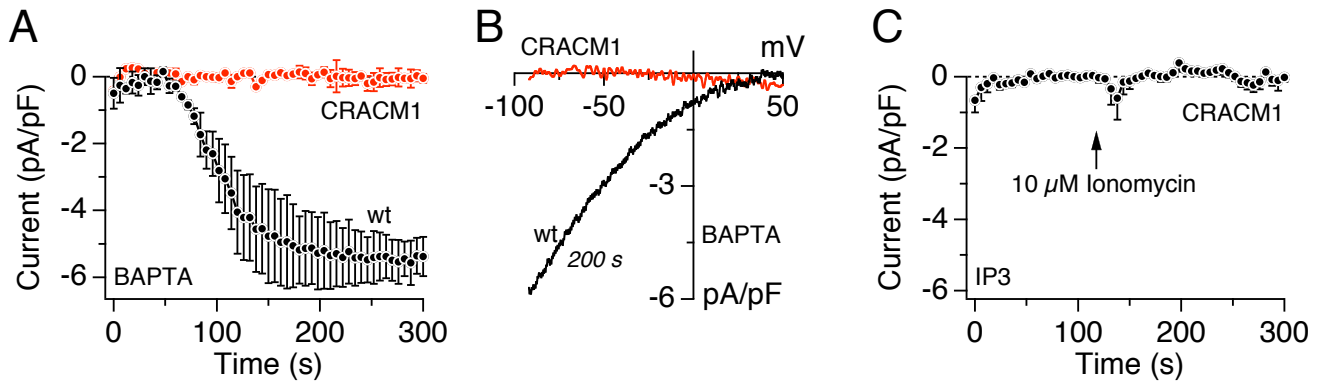
HEK cells were transfected with Flag-CRACM1 or CRACM1-myc and 24 hours post transfection, they were fixed with 2% paraformaldehyde and either permeabilized or left intact for surface staining. Cells were immunostained with anti-FLAG M2 mouse monoclonal antibody (Sigma) or anti-myc mouse monoclonal (Invitrogen) 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 ( $\pm$  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 ( $20 \mu M$ )  $I_{CRAC}$  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 ( $\pm$  S.E.M.). Cytosolic calcium was clamped to 150 nM with 10 mM BAPTA and 4 mM  $CaCl_2$ . 10  $\mu M$  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<sup>2+</sup> 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
eyes	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
RplI33	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	VT1A	1	0
Ckl1alpha-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
Ss1	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
fffl	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
twc	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
Gycalpa99B	FBgn00113972	GUCY1A2	1	1
CG2165	FBgn0025704	ATP2B3	5	0
crn	FBgn0000377	CRNKL1	2	0
CG13360	FBgn0025620		1	0
Rbf	FBgn00115799	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
S6klI	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
Rpl18	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, Pbp4	Pbp4: 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
I(3)X-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
Rpl15	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
llp6	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
I(1)G0232	FBgn0028341	PTPN9	2	4
CG15207	FBgn0030248		2	298
I(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
I(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
I(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
cri	FBgn0015374	UBE2G2	2	0
CG15643	FBgn0030654	C12orf49	1	0
CG15645	FBgn0030657		1	2
I(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	HNRP1	3	0
Obp57e	FBgn0050145		3	0
CG30114	FBgn0050114		3	2
CG33550	FBgn0053550		3	1
CG33459	FBgn0053459		3	0
pen-2	FBgn0053198	PSENF1	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
I(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