

Supplementary Materials

Material and Methods

Plasmid Constructs

The pGL3-Hsp70 (dTCF-Luc) reporter was generated by inserting multimerized dTCF/pangolin binding sites (van de Wetering et al, 1997) upstream of the minimal Hsp70 promoter into pGL3-basic (Promega). Opm-V5 and Opm-3xHA were amplified from a full-length cDNA (SD08771, DGRC). The opm rescue construct was generated by introducing 295 silent mutations (GENEART AG) into the full-length opm cDNA (Schulz et al, 2009). WntD-3xHA was generated from a full length cDNA (RE57705, DGRC). TMED5 was amplified from a full-length cDNA (NM_016040, OriGene). pAc-wgGluc was generated by replacing the GFP-coding region of Wg-GFP (Pfeiffer et al, 2002) with the Gaussia Luciferase coding region from CMV-Gluc (NEB). The cni ORF was amplified from a full-length cDNA (RE07818, DGRC). The secreted form of Luciferase (sLuc) (Katanaev et al, 2008), pAc-upd-GFP and 2x6Draf-Luciferase (Muller et al, 2005), pAc-Hh and ptc Δ 136-Luc (Silver et al, 2007) have been described previously.

Immunostainings and VSGV secretion

Wg protein stainings were performed as described in (Bartscherer et al, 2006). Antibodies used were mouse- α -Wg (DSHB), guineapig- α -Sens (gift from H.Bellen) and rabbit- α -dGM130 (Abcam). Extracellular Wg staining was performed as described in (Strigini &

Cohen, 2000). A Leica TCS Sp5 confocal microscope was used for microscopy analysis. Image analysis and quantification was done using ImageJ. Immunostainings on cultured cells were performed using rabbit- α -ERGIC53/58 (Sigma) on paraformaldehyde (PFA) fixed cells. For ERGIC53 stainings, cells were treated with 20 μ M nocodazole for 60 min and brefeldin A (BFA) for additional 30 min after a 10 min incubation on ice. For the VSVG secretion assay, 2×10^4 Hek293T cells were seeded on polyL (Sigma) coated cover slips in 24 well plates on 50 nM siRNAs. Forty-eight hours later, VSVG-GFP (gift of K. Simons) was transfected per well and cells shifted to 40°C overnight. Cells were then treated with brefeldin A (5 μ g/mL) for one hour and cyclohexamid (10 μ g/mL) for two hours at 40°C. In order to induce VSVG-GFP secretion, cells were shifted to 32°C and MeOH fixed 15 min and 60 min after temperature shift. A LEICA TCS Sp5 confocal microscope was used for microscopy analysis. Image analysis was performed using Adobe Photoshop and ImageJ.

Fly strains

RNAi lines targeting *opm* (transformant IDs # 10168, RNAi 1), *evi* (CG6210, # 103812), *rel* (CG11992, #108469), *p24-1* (CG1967, #12196, RNAi 1), *por* (CG6205, # 9149), *ChOp24* (CG3564, #7039, RNAi 1), *eca* (CG33104, #49749, RNAi 1), *p24-2* (CG33105, #5843), CG9308 (#6608) and CG31787 (#6372) were obtained from the Vienna *Drosophila* RNAi Center (VDRC). RNAi lines targeting *opm* (BKN27517, RNAi 2), *ChOP24* (BNK27384, RNAi 2), *p24-1* (BKN28359, RNAi 2), *eca* (BKN29376, RNAi 2) and *bai* (CG11785, BKN28684) were kindly generated by K.Keleman and B.Dixon.

UAS-KDEL-GFP and the CHOp24 P-element insertion line (e04526) were obtained from Bloomington. The WntD mutant is described in (Gordon et al, 2005).

Opm targeting by homologous recombination

The CG9053 gene was targeted by ends-out homologous recombination as described previously. Transgenic lines containing the targeting construct were established in a w^{1118} background using standard procedures. Donor males were crossed to P{70Flp}11 P{70I-SceI}2B, *sco*/*Cyo* (Bloomington) females. Vials were heat-shocked for 60 min three days after egg-laying. *Sco* virgin F1 females with white or mosaic eyes were crossed to Fm7 males and screened for insertion on the X-chromosome. Positive recombinants were outcrossed with w^{1118} for 6 generations and balanced using the FM7 chromosome. For the generation of *opm* mutant clones, *opm*^{9.3} was recombined on FRT18A (Bloomington). *opm*^{9.3}FRT18A males were then crossed with *ubiGFP*, FRT18A; *hsflp* virgins. Heatshocks were performed at 38°C for 60 min two days after egg laying.

Supplemental Figures S1-S5, Table S1-S3

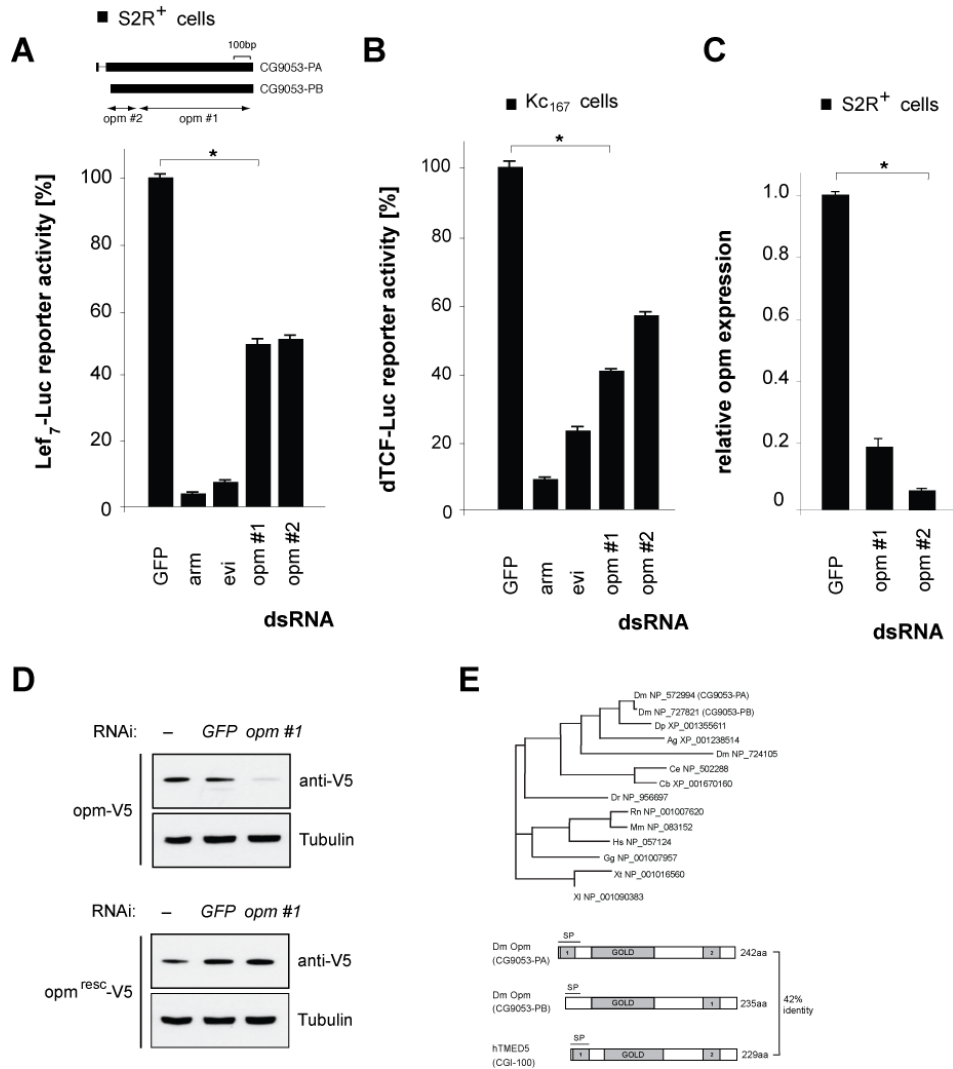


Figure S1: Opm is a novel modulator of Wg signaling in *Drosophila*. (A) Lef₇-Luc reporter activity in S2R⁺ cells, in presence of the indicated dsRNAs. Two independent, non-overlapping dsRNA targeting both splice variants of the *opm* ORF (opm #1, opm #2) were used to confirm the *opm* RNAi phenotype. Data are shown as mean \pm standard deviation (* $p < 0.001$ for all phenotypes, paired Student's t-test, $n = 4$). (B) dTCF-Luc activity in *Drosophila* Kc₁₆₇ cells, in presence of the indicated dsRNAs. Data are shown as mean \pm standard deviation (* $p < 0.001$, paired Student's t-test, $n = 4$). (C) Relative expression of *opm* in S2R⁺ cells normalized to control dsRNAs. Data are shown as mean \pm standard deviation (* $p < 0.001$, paired Student's t-test, $n = 3$). (D) Western blot analysis of Kc₁₆₇ cells treated with the indicated dsRNA and transfected with either wild type *opm* (opm-V5) or an RNAi-insensitive *opm* rescue (opm^{resc}-V5) construct. (E) Upper panel: phylogenetic tree of sequences of different species homologous to *Drosophila* Opm. Genbank accession numbers are indicated. Dm: *Drosophila melanogaster*; Dp: *Drosophila pseudoobscura*; Ag: *Anopheles gambiae*; Ce: *Caenorhabditis elegans*; Cb: *Caenorhabditis briggsae*; Dr: *Danio rerio*; Rn: *Rattus*

norvegicus; Mm: *Mus musculus*; Hs: *Homo sapiens*; Gg: *Gallus gallus*; Xt: *Xenopus tropicalis*; Xl: *Xenopus laevis*. Lower panel: predicted protein domain architecture of both *Drosophila* Opm splice variants (CG9053-PA and CG9053-PB). Both splice variants contain the conserved GOLD domain (Golgi dynamics, IPR009038) and a C-terminal transmembrane domain. The first transmembrane domain overlaps with a predicted signal peptide. Sequence identity with the human homolog (TMED5, NP_057124) is indicated.

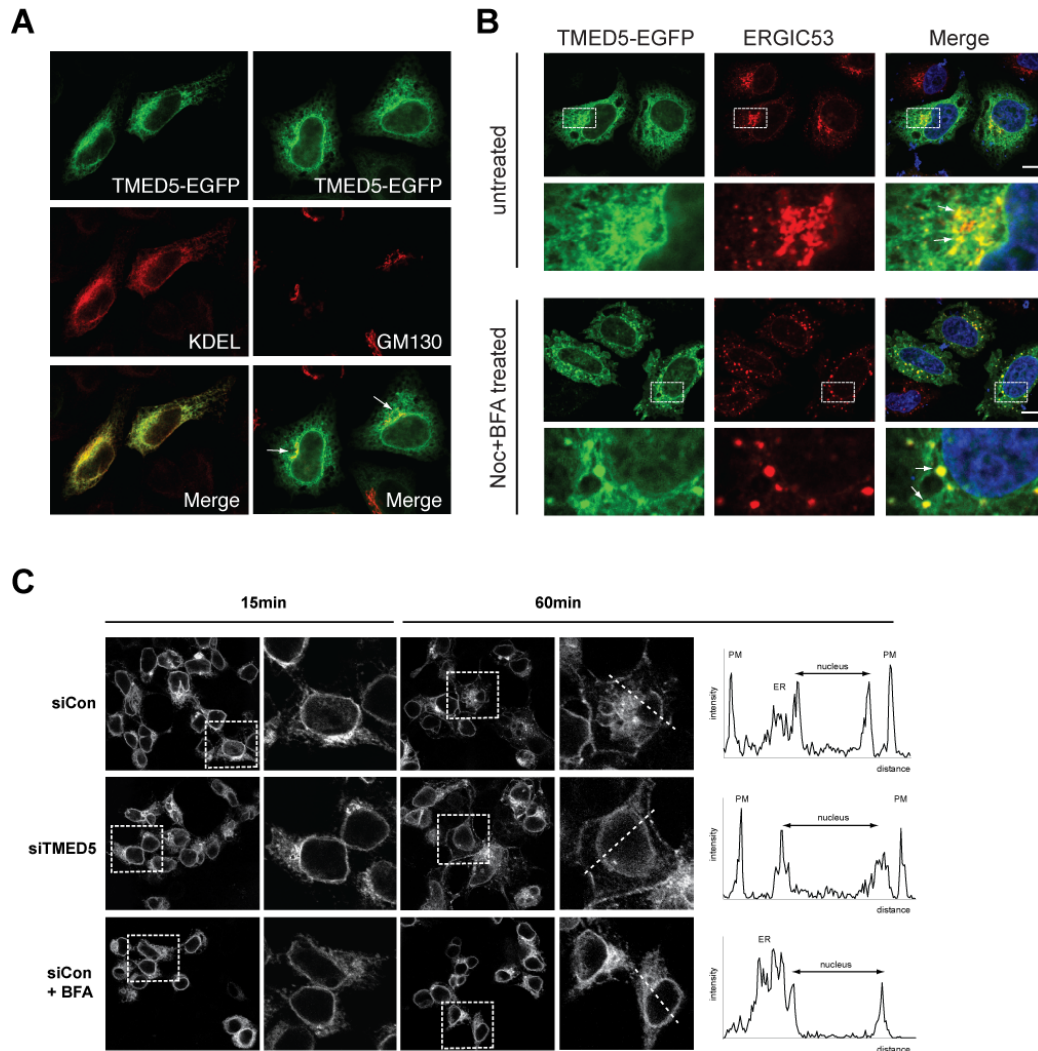


Figure S2: TMED5 shuttles within the early secretory pathway. (A) HeLa cells expressing TMED5-EGFP were co-labeled with anti-KDEL and anti-GM130. (B) HeLa cells transfected with CMV-TMED5-EGFP were treated with Nocodazole (Noc) and Brefeldin A (BFA) and immunostained for ERGIC53. Dashed rectangles indicate magnified regions. DNA (Hoechst) is labeled in blue. All transfected cells ($n > 80$) of three independent experiments showed co-localization with ERGIC53. Arrows highlight areas of exemplary colocalization. Scale bars represent $10 \mu\text{m}$. (C) Hek293T cells were transfected with the indicated siRNAs and VSVG-GFP and imaged 15 min and 60 min post temperature shift to induce VSVG-GFP secretion from the ER to the plasma membrane. Dashed rectangles indicate magnified regions. VSVG was detected at the plasma membrane in 75% and 70% of cells for siCon and siTMED5, respectively (total number of cells analyzed $n > 90$, $p < 0.001$, Chi-square test). No VSVG was detected at the plasma membrane in cells treated with Brefeldin A (BFA) (total number of cells analyzed $n > 120$, $p < 0.001$, Chi-square test). (E,J,O) VSVG intensity profiles from cross-sections for 60 min post temperature shift (dashed lines in magnified regions, performed in ImageJ). PM plasma membrane, ER endoplasmatic reticulum.

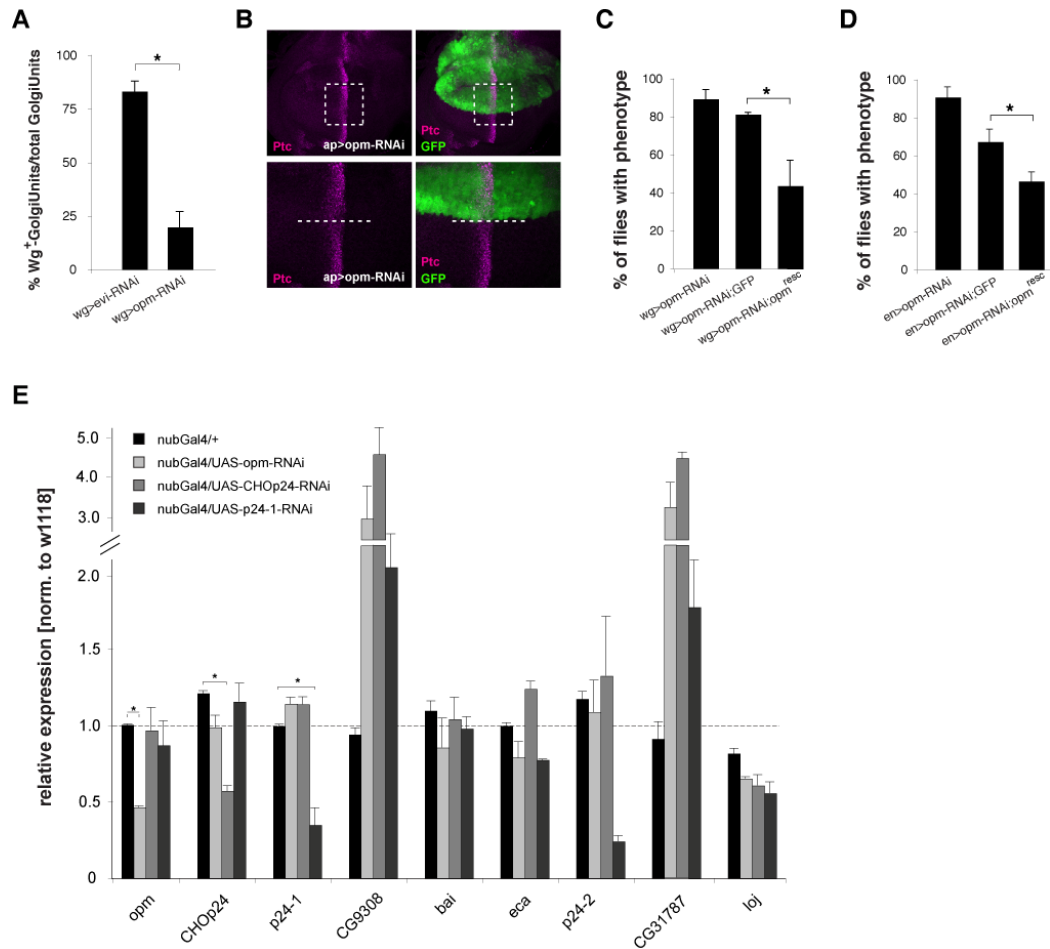


Figure S3: p24 proteins are required for Wg secretion in vivo. (A) Quantification of Wg-positive stacked Golgi fragments (units) versus the total number of GM130-positive units within the Wg-secreting cells (* $p < 0.0001$, $n = 5$, Chi-square test). (B) Ptc staining of third instar larval wing discs of the genotype apGal4/UAS-opm-RNAi ($n = 5$ analyzed). GFP marks the RNAi expression domain. The dashed line indicates the D/V boundary. (C) Quantification of flies of the genotypes wgGal4/UAS-opm-RNAi, wgGal4/UAS-opm-RNAi;UAS-GFP/+ and wgGal4/UAS-opm-RNAi;UAS-opm^{resc}/+ showing wing margin defects and loss of sensory bristles at 25°C. Data are shown as mean \pm standard deviation of three independent experiments ($n > 200$ per genotype, * $p < 0.0001$, Chi-square test). (D) Quantification of flies of the genotypes enGal4/UAS-opm-RNAi, enGal4/UAS-opm-RNAi;UAS-GFP/+ and enGal4/UAS-opm-RNAi;UAS-opm^{resc}/+ showing wing margin defects and loss of sensory bristles in the posterior compartment of the wing. Data are shown as mean \pm standard deviation of three independent experiments ($n > 50$ per genotype, * $p < 0.0001$, Chi-square test). (E) Relative expression of p24 proteins in wing discs of the indicated genotypes (nubGal4/UAS-opm-RNAi, nubGal4/UAS-CHOp24-RNAi and nubGal4/+; UAS-p24-1-RNAi/+) normalized to wildtype (w1118). Data are shown as mean \pm standard deviation ($p < 0.001$, $n = 3$, paired Student's t-test).

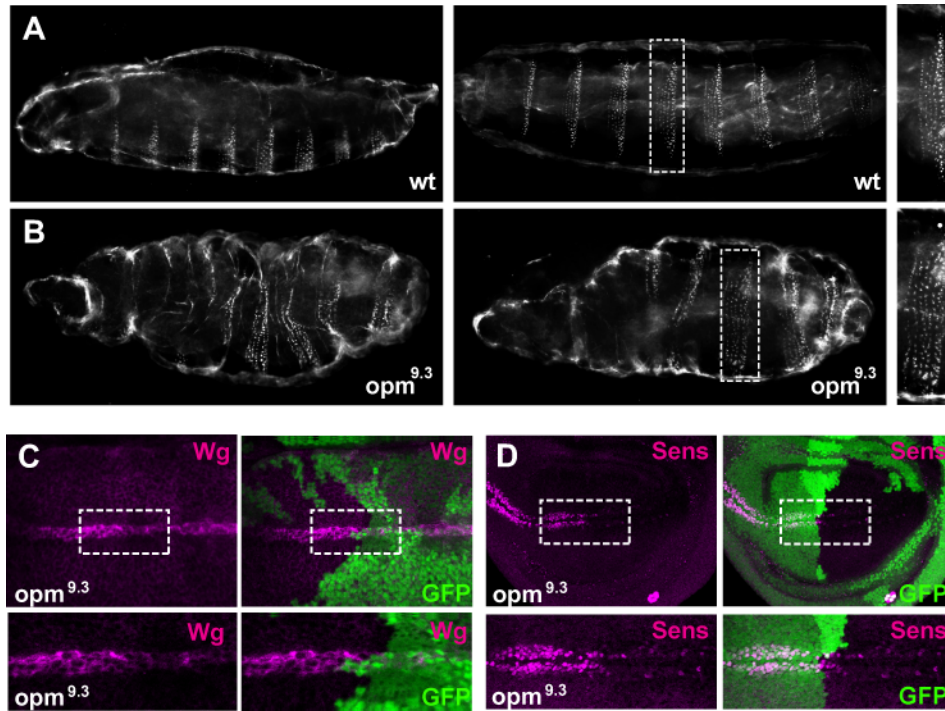


Figure S4: *opm* is required for embryonic development. (A-B) Cuticle preparations of wildtype and homozygous *opm*^{9.3} mutant embryos lacking maternal contribution in a lateral and ventral view (n>50 analyzed for both genotypes). Dashed rectangles indicate magnified regions of a single segment. (C) Total Wg staining in mitotic *opm*^{9.3} mutant clones of third instar wing discs marked by the absence of GFP. (D) Sens staining in *opm*^{9.3} mutant clones. Note that Sens is only affected in very large clones (10% penetrance). Clones are marked by the absence of GFP. Dashed rectangles indicate magnified regions.

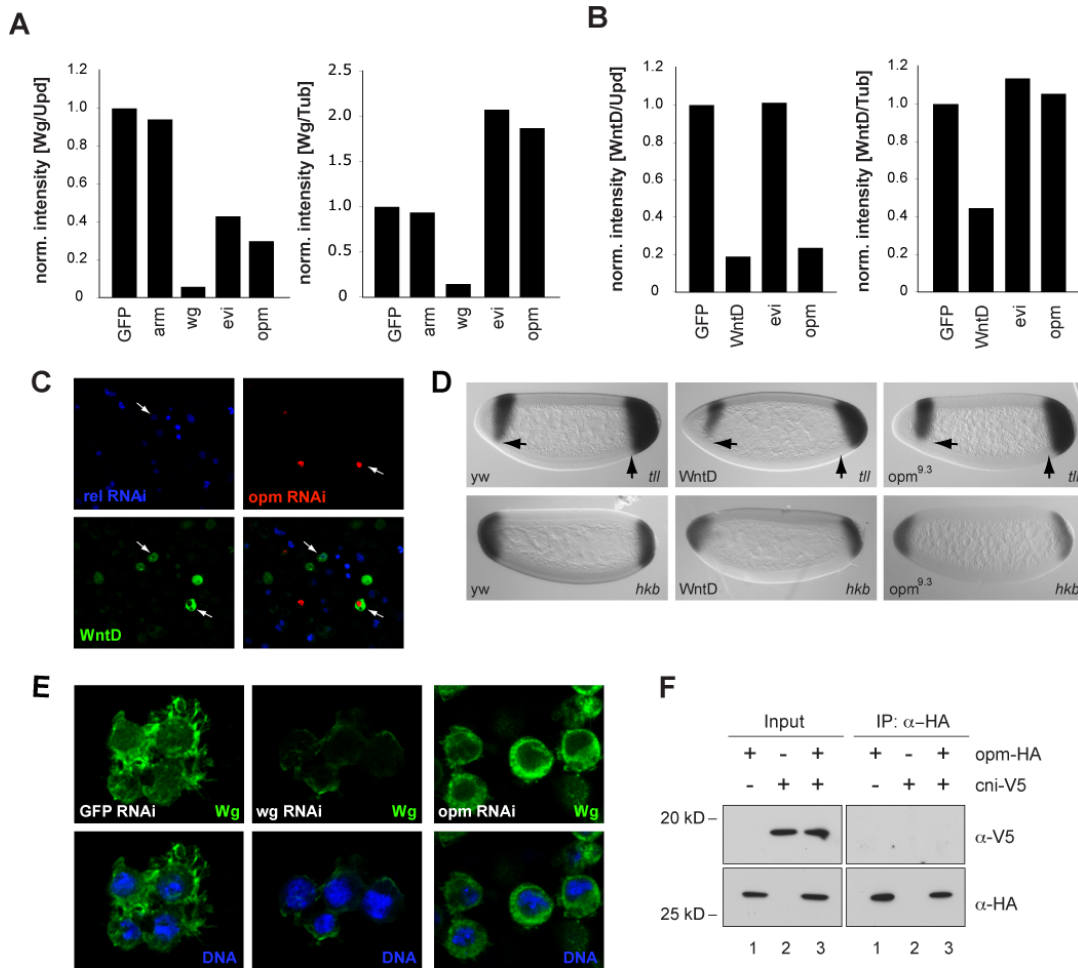


Figure S5: Wnt proteins accumulate in *opm*-deficient cells. (A-B) Quantification of Wg and WntD protein amounts in supernatants and lysates, in presence of the indicated dsRNAs. (C) WntD accumulates in *opm*-deficient cells. His-2B-CFP cells depleted for Relish (*rel*) were mixed with His-2B-RFP cells treated with *opm* dsRNAs and transfected with a WntD-HA expression plasmid. Higher levels of WntD-HA can be seen in *opm*-depleted cells suggesting defects in WntD secretion. Arrows mark the different populations of cells. (D) In situ hybridizations on early embryos of the indicated genotypes of the terminal gap genes *tailless* (*tll*) and *huckebein* (*hkb*). Note that *opm^{9.3}* embryos phenocopy the WntD mutant phenotype ($n > 30$ for all genotypes). (E) Wg accumulates in *opm*-deficient cells. S2-*wg*-FLAG cells in the presence of the indicated dsRNAs were immunostained for Wg and Hoechst (blue) to label DNA. (F) Opm control immunoprecipitation experiments: CoIP of Opm-HA and *cni*-V5 from lysates of transfected S2 cells. Cornichon (*cni*) is an ER-resident transmembrane protein.

Supplementary Table 1: RNAi IDs for Transport Proteins based on PANTHER Annotation information and known Wg/Wnt pathway components

RNAi ID	Annotation Flybase r5.10 ^a	Annotation Flybase r5.25 ^b	Flybase CG r5.25	Gene Symbol	Gene Name	Screen z score	Viability defect	PANTHER Database Annotation
BKN22291	FBgn0085432	FBgn0085432	CG17964	pan	pangolin	-9.0		
BKN25722	FBgn0039907	FBgn0039907	CG2041	lgs	legless	-9.0		
BKN22626	FBgn0000117	FBgn0000117	CG11579	arm	armadillo	-7.2		
BKN21133	FBgn0000119	FBgn0000119	CG5912	arr	arrow	-6.8		
BKN28114	FBgn0043900	FBgn0043900	CG11518	pygo	pygopus	-6.1		
BKN21751	FBgn0036141	FBgn0036141	CG6210	wls/evi	wntless/evi	-5.2		
BKN28857	FBgn0004009	FBgn0004009	CG4889	wg	wingless	-5.0		
BKN28004	FBgn0001085	FBgn0001085	CG17697	fz	frizzled	-4.6		
BKN28967	FBgn0000499	FBgn0000499	CG18361	dsh	dishevelled	-3.3		
BKN27517	FBgn0030606	FBgn0030606	CG9053	CG9053	-	-3.1		T1/ST2 RECEPTOR BINDING PROTEIN (PTHR22811:SF12)
BKN27384	FBgn0029709	FBgn0029709	CG3564	CHOp24	CHOp24	-3.0		COPII-COATED VESICLE MEMBRANE PROTEIN P24 (PTHR22811:SF11)
BKN28994	FBgn0003371	FBgn0003371	CG2621	sgg	shaggy	-2.8		
BKN21319	FBgn0027338	FBgn0027338	CG9423	Kap-alpha3	karyopherin alpha3	-2.7	Yes	IMPORTIN ALPHA (PTHR23316)
BKN20120	FBgn0037017	FBgn0037017	CG4074	CG4074	-	-2.2		DOWN SYNDROME CRITICAL REGION PROTEIN 3 (PTHR12233:SF2)
BKN27479	FBgn0044871	FBgn0044871	CG7700	Gos28	Gos28	-2.0		GOS-28 SNARE- RELATED (PTHR21094)
BKN28393	FBgn0033468	FBgn0033468	CG1418	CG1418	-	-2.0		PRENYLATED RAB ACCEPTOR 1-RELATED (PTHR19317)
BKN20979	FBgn0026479	FBgn0026479	CG3210	Drp1	Dynamamin related protein 1	-2.0		DYNAMIN (PTHR11566:SF12)
BKN32384	FBgn0003888	FBgn0003888	CG3401	betaTub60D	beta-Tubulin at 60D	-2.0		TUBULIN BETA CHAIN (PTHR11588:SF9)
BKN20463	FBgn0000319	FBgn0000319	CG9012	Chc	Clathrin heavy chain	-1.9		CLATHRIN HEAVY CHAIN (PTHR10292:SF1)
BKN21152	FBgn0024689	FBgn0024689	CG6549	fws	four way stop	-1.9		CONSERVED OLIGOMERIC GOLGI COMPLEX COMPONENT 5 (PTHR13228)
BKN20794	FBgn0001202	FBgn0001202	CG10653	hk	hook	-1.9		HOOK PROTEIN (PTHR18947:SF6)
BKN29161	FBgn0000042	FBgn0000042	CG4027	Act5C	Actin 5C	-1.9		ACTIN (PTHR11937)
BKN28242	FBgn0016797	FBgn0016797	CG9739	fz2	frizzled 2	-1.8		
BKN20960	FBgn0031262	FBgn0260933	CG11838	rempA	reduced mechanoreceptor potenti	-1.8		WD40 IFT-RELATED (PTHR15722:SF4)
BKN25639	FBgn0000346	FBgn0000346	CG1618	comt	comatose	-1.8		VESICULAR-FUSION PROTEIN NSF (PTHR23078)
BKN29428	FBgn0038829	FBgn0038829	CG17271	CG17271	-	-1.6		MULTIPLE COAGULATION FACTOR DEFICIENCY PROTEIN 2 (PTHR23104)
BKN20194	FBgn0015796	FBgn0015796	CG8287	Rab8	Rab-protein 8	-1.6		RAS-RELATED PROTEIN RAB-8 (PTHR11708:SF229)
BKN27637	FBgn0028538	FBgn0028538	CG7578	sec71	sec71	-1.6		BREFELDIN A-INHIBITED GE PROTEIN (PTHR10663:SF16)
BKN22606	FBgn0043012	FBgn0043012	CG6056	AP-2sigma	AP-2sigma	-1.6		CLATHRIN COAT ASSEMBLY PROTEIN AP17 (PTHR11753:SF6)
BKN23683	FBgn0034205	FBgn0034205	CG10950	CG10950	-	-1.5		TRANSPORTIN 3 (PTHR12363:SF5)
BKN21011	FBgn0039303	FBgn0039303	CG11857	CG11857	-	-1.5		RER1 PROTEIN (PTHR10743)
BKN21525	FBgn0021814	FBgn0021814	CG12770	Vps28	Vacuolar protein sorting 28	-1.5		VACUOLAR PROTEIN SORTING 28, ISOFORM 2 (VPS28) (PTHR12937)
BKN20103	FBgn0027496	FBgn0027496	CG9543	epsilonCOP	epsilonCOP	-1.5		COATOMER EPSILON SUBUNIT (PTHR10805)
BKN27318	FBgn0038916	FBgn0038916	CG6560	dnd	dead end	-1.4		ADP-RIBOSYLATION FACTOR-LIKE 3, ARL3 (PTHR11711:SF27)
BKN29051	FBgn0035156	FBgn0260862	CG3279	Vti1	-	-1.4		VESICLE TRANSPORT V-SNARE PROTEIN VTI1A (PTHR21230:SF3)
BKN25891	FBgn0004374	FBgn0004374	CG10718	neb	nebbish	-1.4		KINESIN-LIKE 38B (PTHR16012:SF179)
BKN30523	FBgn0003888	FBgn0003888	CG3401	betaTub60D	beta-Tubulin at 60D	-1.3		TUBULIN BETA CHAIN (PTHR11588:SF9)
BKN20500	FBgn0032796	FBgn0032796	CG10188	CG10188	-	-1.3		RHO GUANINE EXCHANGE FACTOR (PTHR22825)
BKN29164	FBgn0030480	FBgn0030480	CG1660	Tim9a	Tim9a	-1.3		MITOCHONDRIAL INNER MEMBRANE TRANSLOCASE (PTHR10898:SF9)
BKN20017	FBgn0029870	FBgn0029870	CG3869	Marf	Mitochondrial assembly regulator	-1.3		TRANSMEMBRANE GTPASE MFN (MITOFUSIN 1) (PTHR10465)
BKN26385	FBgn0037924	FBgn0037924	CG14712	CG14712	-	-1.3	Yes	NUCLEAR ENVELOPE PORE MEMBRANE PROTEIN (PTHR23193:SF5)
BKN21714	FBgn0036702	FBgn0036702	CG6512	CG6512	-	-1.3		MITO. RESPIRATORY CHAIN COMPLEXES ASSEMBLY PROTEIN (PTHR23076:SF11)
BKN23268	FBgn0003545	FBgn0003545	CG12298	sub	subito	-1.3		KINESIN FAMILY MEMBER 20 (RABKINESIN-6) (PTHR16012:SF61)
BKN21728	FBgn0032341	FBgn0032341	CG6192	Reps	-	-1.3		PARTNER OF RALBP-1 (PTHR11216:SF33)
BKN29120	FBgn0036740	FBgn0036740	CG6259	CG6259	-	-1.2		SNF7 - RELATED (PTHR22761)

BKN21956	FBgn0037020	FBgn0037020	CG4289	CG4289	-	-1.2		PEROXISOMAL MEMBRANE PROTEIN PEX14 (PTHR23058)
BKN28631	FBgn0033089	FBgn0033089	CG17266	CG17266	-	-1.2		PEPTIDYL-PROLYL CIS-TRANS ISOMERASE H, PPIH (PTHR11071:SF58)
BKN32853	FBgn0030200	FBgn0030200	CG2885	RabX2	RabX2	-1.2		RAB, DROSOPHILA (PTHR11708:SF204)
BKN23084	FBgn0004868	FBgn0004868	CG4422	Gdi	GDP dissociation inhibitor	-1.2		RAB GDP-DISSOCIATION INHIBITOR (PTHR11787)
BKN20093	FBgn0032925	FBgn0032925	CG9246	CG9246	-	-1.2		YEAST NUCLEOLAR COMPLEX 2 (PTHR12687:SF4)
BKN20742	FBgn0005198	FBgn0005198	CG6975	gig	gigas	-1.2		TUBERIN (PTHR10063)
BKN29599	FBgn0003886	FBgn0003886	CG9476	alphaTub85E	alpha-Tubulin at 85E	-1.2		TUBULIN ALPHA CHAIN (PTHR11588:SF10)
BKN24043	FBgn0011596	FBgn0011596	CG4568	fzo	fuzzy onions	-1.2		TRANSMEMBRANE GTPASE MFN (MITOFUSIN 1) (FZO HOMOLOG) (PTHR10465)
BKN28716	FBgn0030877	FBgn0030877	CG7846	Arp8	Actin-related protein 8	-1.2		ACTIN-RELATED PROTEIN 6, ARP6 (PTHR11937:SF13)
BKN27894	FBgn0033687	FBgn0033687	CG8407	CG8407	-	-1.1		AXONEMAL DYNEIN LIGHT CHAIN 4 (PTHR11886:SF2)
BKN27799	FBgn0040228	FBgn0040228	CG10846	dyn-p25	dynactin-subunit-p25	-1.1		DYNACTIN SUBUNIT P25 (PTHR13061)
BKN22009	FBgn0035060	FBgn0035060	CG16932	Eps-15	EGF receptor pathway substrate	-1.1		EPS-15 (PTHR11216:SF34)
BKN21383	FBgn0031536	FBgn0031536	CG3248	Cog3	Cog3	-1.1		CONSERVED OLIGOMERIC GOLGI COMPLEX COMPONENT 3 (PTHR13302)
BKN23024	FBgn0013998	FBgn0013998	CG33101	Nsf2	NEM-sensitive fusion protein 2	-1.1		VESICULAR-FUSION PROTEIN NSF (PTHR23078)
BKN20148	FBgn0015567	FBgn0015567	CG4260	alpha-Adaptin	alpha-Adaptin	-1.1		ADAPTER-RELATED PROTEIN COMPLEX 2 ALPHA 1 SUBUNIT (PTHR22780:SF4)
BKN33177	FBgn0036855	FBgn0260857	CG14084	Bet1	-	-1.0		GOLGI SNARE BET1 (PTHR12791:SF10)
BKN21453	FBgn0035233	FBgn0035233	CG7864	CG7864	-	-1.0		PEROXISOME ASSEMBLY PROTEIN 10 (PTHR23350)
BKN25566	FBgn0002948	FBgn0002948	CG1763	nod	no distributive disjunction	-1.0		KINESIN-LIKE PROTEIN NOD (PTHR16012:SF185)
BKN21622	FBgn0025700	FBgn0025700	CG5885	CG5885	-	-1.0	Yes	TRANSLOCON-ASSOCIATED PROTEIN (TRAP), GAMMA SUBUNIT (PTHR13399)
BKN29972	FBgn0051495	FBgn0051495	CG31495	CG31495	-	-1.0		VESICULAR-FUSION PROTEIN NSF (PTHR23078)
BKN21717	FBgn0036020	FBgn0036020	CG8336	CG8336	-	-1.0		PEPTIDYL-PROLYL CIS-TRANS ISOMERASE (CYCLOPHILIN) (PTHR11071:SF48)
BKN20949	FBgn0004574	FBgn0004574	CG15811	Rop	Ras opposite	-1.0		SYNTAXIN BINDING PROTEIN-1,2,3 (PTHR11679:SF7)
BKN27745	FBgn0028411	FBgn0028411	CG12752	Nxt1	NTF2-related export protein 1	-1.0		NUCLEAR TRANSPORT FACTOR 2 (PTHR12612)
BKN23063	FBgn0000115	FBgn0000115	CG6025	Arf72A	Arflike at 72A	-1.0		ADP-RIBOSYLATION FACTOR, ARF (PTHR11711:SF30)
BKN26619	FBgn0015907	FBgn0015907	CG13425	bl	bancal	-1.0		HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN K (PTHR10288:SF38)
BKN20515	FBgn0053214	FBgn0053214	CG33214	CG33214	-	-1.0		SELECTIN LIGAND RELATED (PTHR11884)
BKN20630	FBgn0039925	FBgn0039925	CG17461	Kif3C	Kif3C	-1.0		OSMOTIC ABNORMAL AVOIDANCE 3 (PTHR16012:SF167)
BKN28333	FBgn0027594	FBgn0027594	CG2086	drpr	draper	-0.9		EGF-LIKE DOMAIN PROTEIN (PTHR11201:SF146)
BKN22256	FBgn0028497	FBgn0028497	CG3530	CG3530	-	-0.9		MYOTUBULARIN-RELATED PROTEIN 6, 7, 8 (PTHR10807:SF11)
BKN29431	FBgn0004179	FBgn0004179	CG6395	Csp	Cysteine string protein	-0.9		DNAJ HOMOLOG SUBFAMILY C MEMBER 5 (PTHR11821:SF22)
BKN22614	FBgn0039348	FBgn0039348	CG4673	CG4673	-	-0.9	Yes	NUCLEAR PROTEIN LOCALIZATION 4 (PTHR12710)
BKN26540	FBgn0037307	FBgn0037307	CG14666	Tim17a2	Tim17a2	-0.9		MITOCHONDRIAL INNER MEMBRANE TRANSLOCASE SUBUNIT TIM17 (PTHR10485)
BKN21394	FBgn0026664	FBgn0260858	CG1515	Ykt6	-	-0.9		SNARE PROTEIN YKT6 (PTHR21136:SF5)
BKN20155	FBgn0029834	FBgn0029834	CG5937	CG5937	-	-0.9		PROTEIN TRANSPORT PROTEIN SEC7 (PTHR10663:SF17)
BKN29340	FBgn0037084	FBgn0037084	CG7736	Syx6	Syntaxin 6	-0.9		SYNTAXIN 6 (PTHR12380:SF10)
BKN28288	FBgn0030089	FBgn0030089	CG9113	AP-1gamma	AP-1gamma	-0.9		ADAPTER-RELATED PROTEIN COMPLEX 1 GAMMA SUBUNIT (PTHR22780:SF5)
BKN20094	FBgn0030286	FBgn0030286	CG1657	CG1657	-	-0.9		VACUOLAR PROTEIN SORTING-ASSOCIATED PROTEIN (PTHR23101:SF24)
BKN27046	FBgn0259210	FBgn0259210	CG42310	prom	prominin	-0.9		PROMININ (PROM) PROTEIN (PTHR22730)
BKN28988	FBgn0000257	FBgn0000257	CG12230	car	carnation	-0.8		VACUOLAR PROTEIN SORTING (VPS33) (PTHR11679:SF1)
BKN25960	FBgn0032650	FBgn0032650	CG7094	CG7094	-	-0.8		CASEIN KINASE (PTHR11909:SF18)
BKN31371	FBgn0061492	FBgn0061492	CG10733	loj	logjam	-0.8		COP-COATED VESICLE MEMBRANE PROTEIN P24 (PTHR22811:SF9)
BKN21175	FBgn0026634	FBgn0026634	CG6177	IdlCp	IdlCp-related protein	-0.8		CONSERVED OLIGOMERIC GOLGI COMPLEX COMPONENT 2 (PTHR12961)
BKN20755	FBgn0037357	FBgn0037357	CG1250	sec23	sec23	-0.8		PROTEIN TRANSPORT PROTEIN SEC23 (PTHR11141)
BKN24140	FBgn0004377	FBgn0004377	CG15844	Klp54D	Kinesin-like protein at 54D	-0.8		KINESIN 12 - RELATED (PTHR16012:SF120)
BKN27886	FBgn0041588	FBgn0041588	CG31426	ligatin	ligatin	-0.8		LIGATIN (PTHR12217:SF2)
BKN22697	FBgn0085443	FBgn0085443	CG34414	spri	sprint	-0.8		RAS INTERACTION/INTERFERENCE PROTEIN 1, 2, 3 (PTHR23101:SF3)
BKN21884	FBgn0029903	FBgn0029903	CG4532	pod1	pod1	-0.8		CORONIN (PTHR10856)
BKN22501	FBgn0032258	FBgn0032258	CG7456	CG7456	-	-0.8		CONSERVED OLIGOMERIC GOLGI COMPLEX COMPONENT 4 (PTHR10483:SF7)
BKN26581	FBgn0035657	FBgn0035657	CG10478	CG10478	-	-0.8		IMPORTIN ALPHA (PTHR23316)
BKN27923	FBgn0031450	FBgn0031450	CG2903	Hrs	Hepatocyte growth factor regulat	-0.8		HGF-REGULATED TYROSINE KINASE SUBSTRATE (PTHR13856:SF45)
BKN24070	FBgn0036085	FBgn0036085	CG6527	CG6527	-	-0.8		VESICLE-ASSOCIATED MEMBRANE PROTEIN (VAMP) (PTHR10809)
BKN20310	FBgn0004380	FBgn0004380	CG10642	Klp64D	Kinesin-like protein at 64D	-0.8		KINESIN-LIKE PROTEIN KIF3 (PTHR16012:SF161)

BKN21620	FBgn0033460	FBgn0033460	CG1472	sec24	sec24	-0.8	SEC24-RELATED PROTEIN (PTHR13803)
BKN27687	FBgn0028400	FBgn0028400	CG10047	Syt4	Synaptotagmin 4	-0.8	SYNAPTOTAGMIN-4, INSECTS (PTHR10024:SF32)
BKN21840	FBgn0036207	FBgn0036207	CG10907	CG10907	-	-0.8	PEPTIDYL-PROLYL CIS-TRANS ISOMERASE (CYCLOPHILIN) (PTHR11071:SF33)
BKN20096	FBgn0034708	FBgn0034708	CG5625	Vps35	Vacuolar protein sorting 35	-0.7	VACUOLAR SORTING PROTEIN 35 (PTHR11099)
BKN32400	FBgn0030377	FBgn0030377	CG1924	CG1924	-	-0.7	CALNEXIN (PTHR11073:SF1)
BKN20511	FBgn0033714	FBgn0033714	CG8487	garz	gartenzwerg	-0.7	GOLGI-SPECIFIC BREFELDIN A-RESISTANCE FACTOR (PTHR10663:SF8)
BKN20803	FBgn0011692	FBgn0011692	CG1258	pav	pavarotti	-0.7	RABKINESIN-6 - RELATED (PTHR16012:SF188)
BKN20815	FBgn0023172	FBgn0023172	CG9635	RhoGEF2	RhoGEF2	-0.7	RHO GUANINE EXCHANGE FACTOR (PTHR22825)
BKN22724	FBgn0031408	FBgn0031408	CG10882	CG10882	-	-0.7	SEC24-RELATED PROTEIN (PTHR13803)
BKN24479	FBgn0035155	FBgn0035155	CG12015	RabX6	RabX6	-0.7	RAS-RELATED PROTEIN RAB (PTHR11708:SF144)
BKN20516	FBgn0038576	FBgn0038576	CG7940	Arp5	Actin-related protein 5	-0.7	ACTIN-RELATED PROTEIN 5, ARP5 (PTHR11937:SF16)
BKN22786	FBgn0013756	FBgn0013756	CG8274	Mtor	Megator	-0.7	NUCLEOPROTEIN TPR-RELATED (PTHR18898)
BKN27500	FBgn0004176	FBgn0260639	CG3157	gammaTub23C	gamma-Tubulin at 23C	-0.7	TUBULIN GAMMA CHAIN (PTHR11588:SF7)
BKN20866	FBgn0013563	FBgn0013563	CG6760	l(3)70Da	lethal (3) 70Da	-0.7	PEROXISOME BIOGENESIS FACTOR 1 (PEROXIN-1) (PTHR23077:SF12)
BKN23792	FBgn0034566	FBgn0034566	CG9313	CG9313	-	-0.7	AXONEMAL DYNEIN INTERMEDIATE CHAIN POLYPEPTIDE 1 (PTHR12442:SF11)
BKN22740	FBgn0022213	FBgn0022213	CG13281	Cas	CAS/CSE1 segregation protein	-0.7	IMPORTIN-ALPHA RE-EXPORTER) (PTHR10997:SF8)
BKN24982	FBgn0035100	FBgn0035100	CG7051	CG7051	-	-0.7	gb def. LP11180p (Fragment) (PTHR12442:SF8)
BKN28559	FBgn0036204	FBgn0036204	CG11611	Tim13	Tim13	-0.7	TRANSLOCASE OF INNER MITOCHONDRIAL MEMBRANE 13 (PTHR19338)
BKN28271	FBgn0028552	FBgn0028552	CG3988	gammaSnap	gamma-soluble NSF attachment	-0.7	GAMMA-SOLUBLE NSF ATTACHMENT PROTEIN (SNAP-GAMMA) (PTHR13768:SF2)
BKN31312	FBgn0002936	FBgn0002936	CG3966	ninaA	neither inactivation nor afterpoter	-0.6	CYCLOPHILIN-R (PTHR11071:SF50)
BKN21390	FBgn0027363	FBgn0027363	CG6521	Stam	Signal transducing adaptor molec	-0.6	Yes SIGNAL TRANSDUCING ADAPTER MOLECULE (STAM) (PTHR13856:SF23)
BKN32081	FBgn0000045	FBgn0000045	CG7478	Act79B	Actin 79B	-0.6	ACTIN (PTHR11937)
BKN20222	FBgn0030476	FBgn0261085	CG10617	Syt12	Synaptotagmin 12	-0.6	SYNAPTOTAGMIN-12 (PTHR10024:SF15)
BKN28809	FBgn0031310	FBgn0031310	CG4764	CG4764	-	-0.6	VACUOLAR SORTING PROTEIN VPS29 (PTHR11124)
BKN22400	FBgn0035866	FBgn0035866	CG7197	CG7197	-	-0.6	ADP-RIBOSYLATION FACTOR-LIKE 5, ARL5 (PTHR11711:SF31)
BKN26746	FBgn0004381	FBgn0004381	CG7293	Klp68D	Kinesin-like protein at 68D	-0.6	KINESIN-LIKE PROTEIN KLP68D (PTHR16012:SF168)
BKN27584	FBgn0086913	FBgn0086913	CG34410	Rab26	Rab26	-0.6	RAS-RELATED PROTEIN RAB-37 AND 26 (PTHR11708:SF209)
BKN27793	FBgn0031050	FBgn0031050	CG12235	Arp11	Arp11	-0.6	ACTIN-RELATED PROTEIN 10, ARP10 (PTHR11937:SF14)
BKN24636	FBgn0028974	FBgn0028974	CG32562	xmas-2	xmas-2	-0.6	80 KDA MCM3-ASSOCIATED PROTEIN (PTHR12436:SF3)
BKN21004	FBgn0038908	FBgn0260940	CG6637	lsn	larsen	-0.6	EAP30 SUBUNIT OF ELL COMPLEX (PTHR12806)
BKN30094	FBgn0031164	FBgn0031164	CG1724	CG1724	-	-0.6	MITOCHONDRIAL INNER MEMBRANE TRANSLOCASE SUBUNIT TIM17 (PTHR10485)
BKN22699	FBgn0035799	FBgn0035799	CG14838	CG14838	-	-0.6	TESTIS DEVELOPMENT PROTEIN NYD-SP29 (PTHR12442:SF5)
BKN22445	FBgn0001308	FBgn0001308	CG7765	Khc	Kinesin heavy chain	-0.6	KINESIN HEAVY CHAIN SUBUNIT 5 (PTHR16012:SF131)
BKN28654	FBgn0038947	FBgn0038947	CG7073	sar1	sar1	-0.6	GTP-BINDING PROTEIN SAR1 (PTHR11711:SF12)
BKN20234	FBgn0052758	FBgn0052758	CG32758	CG32758	-	-0.5	SORTING NEXIN 27 (PTHR12431:SF1)
BKN28941	FBgn0004575	FBgn0004575	CG3985	Syn	Synapsin	-0.5	SYNAPSIN RELATED (PTHR10841:SF3)
BKN25506	FBgn0040232	FBgn0040232	CG6392	cmet	CENP-meta	-0.5	KINESIN-LIKE KINETOCHORE MOTOR PROTEIN CENP (PTHR16012:SF190)
BKN20275	FBgn0051048	FBgn0051048	CG31048	CG31048	-	-0.5	DOCK-3,4 (PTHR23317:SF28)
BKN27776	FBgn0031282	FBgn0031282	CG3639	CG3639	-	-0.5	PEROXISOME ASSEMBLY PROTEIN 12 (PEROXIN-12) (PTHR12888)
BKN29413	FBgn0027360	FBgn0260223&FBgn0027360	CG9878	Tim10	Translocase of inner membrane	-0.5	MITOCHONDRIAL INNER MEMBRANE TRANSLOCASE SUBUNIT TIM10 (PTHR11038:SF
BKN24453	FBgn0051787	FBgn0051787	CG31787	CG31787	-	-0.5	T1/ST2 RECEPTOR BINDING PROTEIN (PTHR22811:SF12)
BKN23487	FBgn0011823	FBgn0011823	CG4799	Pen	Pendulin	-0.5	IMPORTIN ALPHA (PTHR23316)
BKN21724	FBgn0024753	FBgn0024753	CG32593	Flo-2	flotillin 2	-0.5	FLOTILLIN-2 (PTHR13806:SF9)
BKN28099	FBgn0027356	FBgn0027356	CG8604	Amph	Amphiphysin	-0.5	BRIDGING INTEGRATOR (PTHR10321:SF9)
BKN21865	FBgn0036756	FBgn0036756	CG5582	cln3	cln3	-0.5	CLN3/BATTENIN (PTHR10981)
BKN27626	FBgn0036928	FBgn0036928	CG7654	Tom20	Translocase of outer membrane	-0.5	MITOCHONDRIAL IMPORT RECEPTOR SUBUNIT TOM20 (PTHR12430)
BKN26117	FBgn0030384	FBgn0030384	CG2577	CG2577	-	-0.5	CASEIN KINASE (PTHR11909:SF18)
BKN23171	FBgn0039302	FBgn0039302	CG11856	Nup358	Nup358	-0.5	RAN-BINDING PROTEIN (PTHR23138:SF5)
BKN28949	FBgn0053113	FBgn0053113	CG33113	Rtnl1	Rtnl1	-0.5	RETICULON-RELATED (PTHR10994:SF22)
BKN32674	FBgn0259679	FBgn0261556	CG42674	CG42674	-	-0.5	RHO GUANINE EXCHANGE FACTOR (PTHR22825)
BKN20855	FBgn0027565	FBgn0027565	CG5498	CG5498	-	-0.5	SNF7 - RELATED (PTHR22761)
BKN22816	FBgn0027617	FBgn0027617	CG5808	CG5808	-	-0.5	PEPTIDYL-PROLYL CIS-TRANS ISOMERASE-LIKE 4. PPIL4 (PTHR11071:SF27)

BKN29198	FBgn0034314	FBgn0034314	CG5140	nopo	no poles	-0.4		ZN/RING FINGER PROTEIN 2 (PTHR22937:SF6)
BKN29059	FBgn0035992	FBgn00260859	CG3911	Bet3	-	-0.4		TRAFFICKING PROTEIN PARTICLE COMPLEX SUBUNIT 3 (PTHR13048)
BKN33357	FBgn0003890	FBgn0003890	CG4869	betaTub97EF	beta-Tubulin at 97EF	-0.4		TUBULIN BETA CHAIN (PTHR11588:SF9)
BKN22625	FBgn0034367	FBgn0034367	CG5341	sec6	sec6	-0.4		EXOCYST COMPLEX COMPONENT SEC6 (PTHR21292:SF5)
BKN21129	FBgn0010246	FBgn0010246	CG9155	Myo61F	Myosin 61F	-0.4		MYOSIN I (PTHR13140:SF31)
BKN30862	FBgn0000044	FBgn0000044	CG10067	Act57B	Actin 57B	-0.4		ACTIN (PTHR11937)
BKN23482	FBgn0034681	FBgn0034681	CG9308	CG9308	-	-0.4		COPII-COATED VESICLE MEMBRANE PROTEIN P24 (PTHR22811:SF11)
BKN31854	FBgn0000043	FBgn0000043	CG12051	Act42A	Actin 42A	-0.4		ACTIN (PTHR11937)
BKN28759	FBgn0029687	FBgn0029687	CG5014	Vap-33-1	Vap-33-1	-0.4		VESICLE-ASSOCIATED MEMBRANE PROTEIN (VAMP) (PTHR10809)
BKN27586	FBgn0031537	FBgn0031537	CG8843	sec5	sec5	-0.4		EXOCYST COMPLEX COMPONENT SEC5 (PTHR13043)
BKN21494	FBgn0030582	FBgn0030582	CG14411	CG14411	-	-0.4		MYOTUBULARIN-RELATED PROTEIN 10, 11, 12 (PTHR10807:SF3)
BKN26270	FBgn0000352	FBgn0000352	CG1708	cos	costa	-0.4		KINESIN-RELATED PROTEIN (PTHR16012:SF34)
BKN28359	FBgn0030341	FBgn0030341	CG1967	p24-1	p24-related-1	-0.4		COP-COATED VESICLE MEMBRANE PROTEIN EMP24 (PTHR22811:SF13)
BKN20484	FBgn0039120	FBgn0039120	CG10198	Nup98	Nup98	-0.4		NUCLEOPORIN (PTHR23198)
BKN28368	FBgn0051229	FBgn0051229	CG31229	CG31229	-	-0.4		MITOCHONDRIAL INNER MEMBRANE TRANSLOCASE SUBUNIT TIM22 (PTHR14110)
BKN33062	FBgn0000047	FBgn0000047	CG5178	Act88F	Actin 88F	-0.4		ACTIN (PTHR11937)
BKN28297	FBgn0015790	FBgn0015790	CG5771	Rab11	Rab-protein 11	-0.4		RAS-RELATED PROTEIN RAB-11 (PTHR11708:SF213)
BKN28660	FBgn0031090	FBgn0031090	CG9575	Rab35	Rab35	-0.4		RAS-RELATED PROTEIN RAB-35 (RAB-1C) (PTHR11708:SF228)
BKN20464	FBgn0037711	FBgn0261049	CG8228	Vps45	Vacuolar protein sorting 45	-0.4		VACUOLAR PROTEIN SORTING-ASSOCIATED (PTHR11679:SF3)
BKN27630	FBgn0014009	FBgn0014009	CG3269	Rab2	Rab-protein 2	-0.4		RAS-RELATED PROTEIN RAB-2 (PTHR11708:SF246)
BKN22652	FBgn0259679	FBgn0261556	CG42674	CG42674	-	-0.4		RHO GUANINE EXCHANGE FACTOR (PTHR22825)
BKN28775	FBgn0033527	FBgn0033527	CG11777	CG11777	-	-0.3		CYCLOPHILIN-10 (PTHR11071:SF38)
BKN20036	FBgn0037233	FBgn0261086	CG9778	Syt14	Synaptotagmin 14	-0.3		SYNAPTOTAGMIN-14 (PTHR10024:SF14)
BKN26044	FBgn0040096	FBgn0040096	CG16834	lectin-33A	lectin-33A	-0.3		MACROPHAGE MANNOSE RECEPTOR (PTHR22803:SF17)
BKN22889	FBgn0021761	FBgn0021761	CG4579	Nup154	Nup154	-0.3	Yes	NUCLEAR PORE COMPLEX PROTEIN NUP154 (PTHR10350:SF5)
BKN33708	FBgn0016976	FBgn0016975&FBgn0016976	CG12500	stnA	stoned A	-0.3		STONED-RELATED (PTHR11998:SF1)
BKN22849	FBgn0016700	FBgn0016700	CG3320	Rab1	Rab-protein 1	-0.3		RAS-RELATED PROTEIN RAB-1 (PTHR11708:SF227)
BKN21759	FBgn0038856	FBgn0038856	CG7034	sec15	sec15	-0.3		SEC15 (PTHR12702)
BKN28849	FBgn0015795	FBgn0015795	CG5915	Rab7	Rab-protein 7	-0.3	Yes	RAS-RELATED PROTEIN RAB-7 (PTHR11708:SF260)
BKN22564	FBgn0086357	FBgn0086357	CG9539	Sec61alpha	Sec61alpha	-0.3		PREPROTEIN TRANSLOCASE SECY SUBUNIT (SEC61) (PTHR10906:SF1)
BKN33740	FBgn0016976	FBgn0016975&FBgn0016976	CG12500	stnA	stoned A	-0.3		STONED-RELATED (PTHR11998:SF1)
BKN27901	FBgn0004575	FBgn0004575	CG3985	Syn	Synapsin	-0.3		SYNAPSIN RELATED (PTHR10841:SF3)
BKN27706	FBgn0024923	FBgn0261014	CG2331	TER94	TER94	-0.3		TRANSITIONAL ENDOPLASMIC RETICULUM ATPASE (PTHR23077:SF18)
BKN23263	FBgn0035574	FBgn0035574	CG32239	Gef64C	Guanine nucleotide exchange fac	-0.3		RHO GUANINE EXCHANGE FACTOR (PTHR22825)
BKN28784	FBgn0016701	FBgn0016701	CG4921	Rab4	Rab-protein 4	-0.3		RAS-RELATED PROTEIN RAB-4 (PTHR11708:SF247)
BKN28680	FBgn0250823	FBgn0250823	CG6963	gish	gilgamesh	-0.3		CASEIN KINASE (PTHR11909:SF18)
BKN29346	FBgn0025726	FBgn0025726	CG2999	unc-13	unc-13	-0.3		UNC-13 (MUNC13) (PTHR10480)
BKN21029	FBgn0028421	FBgn0028421	CG11759	Kap3	Kinesin associated protein 3	-0.3		KINESIN-ASSOCIATED PROTEIN (PTHR15605:SF3)
BKN32286	FBgn0033357	FBgn0033357	CG8226	Tom7	Translocase of outer membrane	-0.3		TRANSLOCASE OF OUTER MEMBRANE SUBUNIT TOM7 (PTHR16463)
BKN27476	FBgn0021825	FBgn0021825	CG8269	Dmn	Dynamitin	-0.3		DYNACTIN SUBUNIT (PTHR15346)
BKN31291	FBgn0020371	FBgn0020371	CG15257	Tim17b2	Translocase inner membrane 17	-0.3		MITOCHONDRIAL INNER MEMBRANE TRANSLOCASE SUBUNIT TIM17 (PTHR10485)
BKN20233	FBgn0035909	FBgn0035909	CG6822	ergic53	ergic53	-0.3		ERGIC-53 PROTEIN (MANNOSE-BINDING LECTIN 1)-RELATED (PTHR12223:SF7)
BKN23040	FBgn0022027	FBgn0022027	CG14750	Vps25	Vacuolar protein sorting 25	-0.2		VACUOLAR PROTEIN SORTING-ASSOCIATED PROTEIN VPS25 (PTHR13149)
BKN29210	FBgn0015789	FBgn0015789	CG17060	Rab10	Rab-protein 10	-0.2		RAS-RELATED PROTEIN RAB-10 (PTHR11708:SF230)
BKN22052	FBgn0019925	FBgn0019925	CG6202	Surf4	Surfeit 4	-0.2		SURFEIT LOCUS PROTEIN 4 (PTHR23427:SF1)
BKN25711	FBgn0033074	FBgn0033074	CG8330	tomboy40	tomboy40	-0.2		MITOCHONDRIAL IMPORT RECEPTOR SUBUNIT TOM40 (PTHR10802)
BKN22171	FBgn0033737	FBgn0033737	CG8831	CG8831	-	-0.2		NUCLEOPORIN P54 (PTHR13000)
BKN28741	FBgn0039110	FBgn0039110	CG10225	CG10225	-	-0.2		RAN-BINDING PROTEIN 3 (PTHR23138:SF4)
BKN21423	FBgn0029789	FBgn0029789	CG3160	CG3160	-	-0.2		GPI INOSITOL DEACYLASE PGAP1 (PTHR15495:SF3)
BKN33032	FBgn0026878	FBgn0026878	CG4325	CG4325	-	-0.2		ZN/RING FINGER PROTEIN 2 (PTHR22937:SF6)
BKN24551	FBgn0038387	FBgn0038387	CG5268	blp	black pearl	-0.2	Yes	MITOCHONDRIA ASSOCIATED GRANULOCYTE MACROPHAGE MOLECULE (PTHR123)
BKN20533	FBgn0027103	FBgn0027103	CG6159	sec10	sec10	-0.2		SEC10 (PTHR12100)

BKN26032	FBgn0011743	FBgn0011743	CG5409	Arp53D	Actin-related protein 53D	-0.2		ACTIN-RELATED PROTEIN (PTHR11937:SF46)
BKN21890	FBgn0035255	FBgn0035255	CG7980	RabX5	RabX5	-0.2		RAS-RELATED PROTEIN RAB-34 AND 36 (PTHR11708:SF267)
BKN29041	FBgn0032782	FBgn0032782	CG9994	Rab9	Rab9	-0.2		RAS-RELATED PROTEIN RAB-9 (PTHR11708:SF261)
BKN26350	FBgn0032653	FBgn0261089	CG5559	Sytalpa	Synaptotagmin alpha	-0.2		SYNAPTOTAGMIN-RELATED (PTHR10024:SF35)
BKN20849	FBgn0031990	FBgn0031990	CG8552	CG8552	-	-0.2		SEC-23 INTERACTING PROTEIN P125 (PTHR15457:SF6)
BKN20714	FBgn0040475	FBgn0040475	CG6757	SH3PX1	SH3PX1	-0.2		SORTING NEXIN-RELATED (PTHR10555:SF12)
BKN27338	FBgn0026252	FBgn0026252	CG7935	msk	moleskin	-0.2		IMPORTIN 7, 8 (IMP7, 8) (RAN-BINDING PROTEIN 7, 8) (PTHR10997:SF18)
BKN20881	FBgn0004379	FBgn0004379	CG10923	Klp67A	Kinesin-like protein at 67A	-0.2		KINESIN-LIKE PROTEIN 5, 6 (PTHR16012:SF110)
BKN21782	FBgn0001087	FBgn0001087	CG10986	g	garnet	-0.2		APL5 PROTEIN (PTHR22781:SF9)
BKN20873	FBgn0002121	FBgn0002121	CG2671	l(2)gl	lethal (2) giant larvae	-0.2		LETHAL GIANT LARVAE (PTHR10241:SF10)
BKN20672	FBgn0039889	FBgn0039889	CG2219	CG2219	-	-0.2		ADP-RIBOSYLATION FACTOR-LIKE 4, ARL4 (PTHR11711:SF28)
BKN20643	FBgn0023458	FBgn0023458	CG3585	Rbcn-3A	Rabconnectin-3A	-0.2		RABCONNECTIN (PTHR13950:SF1)
BKN20665	FBgn0037674	FBgn0261241	CG8454	Vps16A	Vacuolar protein sorting 16A	-0.2		VACUOLAR PROTEIN SORTING VPS16 (PTHR12811)
BKN24300	FBgn0039252	FBgn0039252	CG11771	CG11771	-	-0.1		OLIGOPEPTIDASE (PTHR11804:SF6)
BKN20337	FBgn0030141	FBgn0030141	CG3002	Gga	Gga	-0.1		GAMMA ADAPTIN EAR CONTAINING, ARF BINDING PROTEIN RELATED (PTHR13856:S)
BKN29075	FBgn0038323	FBgn0038323	CG6196	CG6196	-	-0.1		TRAFFICKING PROTEIN PARTICLE COMPLEX SUBUNIT 6B (PTHR12817)
BKN28181	FBgn0040285	FBgn0040285	CG9195	Scamp	Scamp	-0.1		SECRETORY CARRIER-ASSOCIATED MEMBRANE PROTEIN (PTHR10687:SF4)
BKN28524	FBgn0051721	FBgn0051721	CG31721	Trim9	Trim9	-0.1		TRIPARTITE MOTIF PROTEIN TRIM9 (PTHR13712:SF62)
BKN21980	FBgn0028736	FBgn0261274	CG1333	Ero1L	Endoplasmic reticulum oxidoredu	-0.1		ERO1-RELATED (PTHR12613)
BKN22600	FBgn0034095	FBgn0034095	CG15701	CG15701	-	-0.1		DYNEIN INTERMEDIATE CHAIN (PTHR12442)
BKN31781	FBgn0000046	FBgn0000046	CG18290	Act87E	Actin 87E	-0.1		ACTIN (PTHR11937)
BKN21703	FBgn0030820	FBgn0260748	CG5004	CG5004	-	-0.1		PLECKSTRIN HOMOLOGY-LIKE DOMAIN (PTHR16012:SF203)
BKN22143	FBgn0027539	FBgn0027539	CG5807	CG5807	-	-0.1		LIPOCALIN-1 INTERACTING MEMBRANE RECEPTOR (LIMR) (PTHR12625)
BKN23077	FBgn0032347	FBgn0260937	CG4738	Nup160	nuclear pore protein 160	-0.1		NUCLEAR PORE COMPLEX PROTEIN NUP160 (PTHR21286)
BKN22957	FBgn0031829	FBgn0031829	CG9595	osm-6	osm-6	-0.1		OSM-6-RELATED (PTHR12969:SF1)
BKN28572	FBgn0011016	FBgn0011016	CG5474	SsRbeta	Signal sequence receptor beta	-0.1		TRANSLOCON-ASSOCIATED PROTEIN, BETA SUBUNIT PRECURSOR (PTHR12861)
BKN29376	FBgn0069242	FBgn0069242	CG33104	eca	eclair	-0.1		GLYCOPROTEIN 25L (PTHR22811:SF3)
BKN27583	FBgn0039160	FBgn0039160	CG5510	CG5510	-	-0.1		VESICULAR INTEGRAL-MEMBRANE PROTEIN VIP36 (PTHR12223:SF6)
BKN22085	FBgn0004003	FBgn0004003	CG7225	wbl	windbeutel	-0.1		ENDOPLASMIC RETICULUM PROTEIN ERP29 (PTHR12211)
BKN29397	FBgn0030391	FBgn0030391	CG1900	Rab40	Rab40	-0.1		RAS-RELATED PROTEIN RAB-40 (PTHR11708:SF146)
BKN23859	FBgn0030620	FBgn0030620	CG5662	CG5662	-	-0.1		METAXIN 2 (PTHR12289:SF11)
BKN27357	FBgn0024814	FBgn0024814	CG6948	Clc	Clathrin light chain	-0.1		CLATHRIN LIGHT CHAIN (PTHR10639)
BKN20430	FBgn0087013	FBgn0087013	CG1059	Karybeta3	Karyopherin beta 3	-0.1		IMPORTIN BETA-3 (PTHR10527:SF5)
BKN22066	FBgn0038473	FBgn0038473	CG3983	ns1	nucleostemin 1	-0.1		GTP-BINDING PROTEIN-INVERTEBRATE (PTHR11089:SF12)
BKN29439	FBgn0027497	FBgn0027497	CG1098	Madm	MLF1-adaptor molecule	0.0		NUCLEAR RECEPTOR BINDING PROTEIN-RELATED (PTHR13902:SF9)
BKN29692	FBgn0052670	FBgn0052670	CG32670	Rab9Fb	Rab GTPase 9Fb	0.0		RAB, DROSOPHILA (PTHR11708:SF204)
BKN32434	FBgn0085426	FBgn0085426	CG34397	Rgk3	Rgk3	0.0		GTPASE RAB-RELATED (PTHR11708:SF304)
BKN28160	FBgn0015791	FBgn0015791	CG4212	Rab14	Rab-protein 14	0.0		RAS-RELATED PROTEIN RAB-14 (PTHR11708:SF248)
BKN22576	FBgn0039466	FBgn0039466	CG5521	CG5521	-	0.0		TUBERIN (PTHR10063)
BKN22355	FBgn0033038	FBgn0033038	CG7791	CG7791	-	0.0		MITOCHONDRIAL INTERMEDIATE PEPTIDASE (PTHR11804:SF5)
BKN28147	FBgn0026597	FBgn0026597	CG7926	Axn	Axin	0.0		
BKN22387	FBgn0035762	FBgn0035762	CG8605	CG8605	-	0.0		RAD50-INTERACTING PROTEIN 1 (PROTEIN RINT-1) (PTHR13520)
BKN27052	FBgn0031441	FBgn0031441	CG9962	CG9962	-	0.0		CASEIN KINASE (PTHR11909:SF18)
BKN28399	FBgn0040512	FBgn0040512	CG3948	zetaCOP	zetaCOP	0.0	Yes	ZETA-COAT PROTEIN (PTHR11043)
BKN26260	FBgn0037828	FBgn0037828	CG14690	tomboy20	tomboy20	0.0		MITOCHONDRIAL IMPORT RECEPTOR SUBUNIT TOM20 (PTHR12430)
BKN29285	FBgn0039753	FBgn0260860	CG1359	Bet5	-	0.0		TRAFFICKING PROTEIN PARTICLE COMPLEX SUBUNIT 1 (PTHR23249:SF9)
BKN25805	FBgn0037789	FBgn0037789	CG6208	CG6208	-	0.0		GAMMA-SOLUBLE NSF ATTACHMENT PROTEIN (SNAP-GAMMA) (PTHR13768:SF2)
BKN23808	FBgn0026179	FBgn0026179	CG32434	siz	schizo	0.0		BREFELDIN RESISTANT ARF-GEF 2B ISOFORM (PTHR10663:SF12)
BKN20917	FBgn0028327	FBgn0028327	CG32701	l(1)G0320	lethal (1) G0320	0.0		TRANSLOCON-ASSOCIATED PROTEIN, ALPHA SUBUNIT (PTHR12924)
BKN20826	FBgn0038274	FBgn0038274	CG7262	CG7262	-	0.0	Yes	NUCLEAR PORE COMPLEX PROTEIN NUP93 (PTHR11225)
BKN27973	FBgn0032020	FBgn0032020	CG7787	CG7787	-	0.0		GUANINE NUCLEOTIDE EXCHANGE FACTOR MSS4 (PTHR13276)
BKN20039	FBgn0034155	FBgn0034155	CG8566	unc-104	unc-104	0.0		KINESIN-LIKE PROTEIN KIF1 (PTHR16012:SF104)

BKN20379	FBgn0035602	FBgn0260856	CG4780	membrin	-	0.0	MEMBRIN (PTHR21230:SF1)
BKN27406	FBgn0035141	FBgn0035141	CG13892	Cypl	Cyclophilin-like	0.0	PEPTIDYL-PROLYL CIS-TRANS ISOMERASE-LIKE 1, PPIL1 (PTHR11071:SF41)
BKN28454	FBgn0010638	FBgn0010638	CG10130	Sec61beta	Sec61beta	0.0	Yes SEC61BETA-PROV PROTEIN (PTHR13509)
BKN23346	FBgn0051342	FBgn0051342	CG31342	CG31342	-	0.0	SYNTENIN 1 (PTHR12345:SF3)
BKN20029	FBgn0053139	FBgn0053139	CG33139	Ranbp11	Ranbp11	0.0	IMPORTIN 11 (IMP11) (RAN-BINDING PROTEIN 11) (PTHR10997:SF7)
BKN30277	FBgn0039347	FBgn0039347	CG5071	CG5071	-	0.0	PEPTIDYL-PROLYL CIS-TRANS ISOMERASE (CYCLOPHILIN) (PTHR11071:SF2)
BKN29366	FBgn0038401	FBgn0038401	CG5916	CG5916	-	0.0	GH REGULATED TBC PROTEIN-1 (PTHR22957:SF54)
BKN21330	FBgn0034109	FBgn0034109	CG7747	CG7747	-	0.0	PEPTIDYL-PROLYL CIS-TRANS ISOMERASE-LIKE 2, PPIL2 (PTHR11071:SF42)
BKN28557	FBgn0086656	FBgn0086656	CG8055	shrb	shrub	0.0	SNF7 - RELATED (PTHR22761)
BKN20932	FBgn0034585	FBgn0034585	CG4030	CG4030	-	0.1	EARLY ENDOSOME ANTIGEN 1 (PTHR23164)
BKN22582	FBgn0024833	FBgn0024833	CG9388	AP-47	AP-47	0.1	CLATHRIN COAT ASSEMBLY PROTEIN AP-1 (PTHR11998:SF11)
BKN29128	FBgn0032812	FBgn0032812	CG10263	CG10263	-	0.1	E-CADHERIN BINDING PROTEIN E7-RELATED (PTHR13480)
BKN22566	FBgn0024992	FBgn0024992	CG2658	CG2658	-	0.1	PARAPLEGIN (PTHR23076:SF7)
BKN22043	FBgn0008635	FBgn0008635	CG6223	betaCop	beta-coatomer protein	0.1	COATOMER BETA SUBUNIT (PTHR10635)
BKN21630	FBgn0034058	FBgn0034058	CG8315	CG8315	-	0.1	PEROXISOMAL BIOGENESIS FACTOR 11- RELATED (PTHR12652:SF8)
BKN21600	FBgn0030669	FBgn0030669	CG9240	CG9240	-	0.1	MITOCHONDRIAL INNER MEMBRANE PROTEASE SUBUNIT 1 (PTHR12383:SF2)
BKN25220	FBgn0052396	FBgn0052396	CG32396	CG32396	-	0.1	TUBULIN BETA CHAIN (PTHR11588:SF9)
BKN29701	FBgn0259246	FBgn0259246	CG42344	brp	bruchpilot	0.1	RAB6-INTERACTING PROTEIN 2/ELKS/ERC/CAST (PTHR18861)
BKN21387	FBgn0032243	FBgn0032243	CG5300	Klp31E	Klp31E	0.1	KIF21 (PTHR16012:SF173)
BKN28990	FBgn0024921	FBgn0024921	CG7398	Trn	Transportin	0.1	IMPORTIN BETA-2 (PTHR10527:SF3)
BKN25502	FBgn0032188	FBgn0032188	CG13137	CG13137	-	0.1	ALADIN/ADRACALIN/AAAS (PTHR14494)
BKN27773	FBgn0000330	FBgn0000330	CG3035	cm	carmine	0.1	CLATHRIN COAT ADAPTOR AP3 MEDIUM CHAIN (PTHR11998:SF4)
BKN23991	FBgn0039335	FBgn0039335	CG5127	Vps33B	Vacuolar protein sorting 33B	0.1	VACUOLAR PROTEIN SORTING (VPS33) (PTHR11679:SF1)
BKN24683	FBgn0085443	FBgn0085443	CG34414	spri	sprint	0.1	RAS INTERACTION/INTERFERENCE PROTEIN 1, 2, 3 (PTHR23101:SF3)
BKN28047	FBgn0027868	FBgn0027868	CG6743	Nup107	Nup107	0.1	NUP107-RELATED (PTHR13003)
BKN24905	FBgn0038018	FBgn0038018	CG10090	Tim17a1	Tim17a1	0.1	MITOCHONDRIAL INNER MEMBRANE TRANSLOCASE SUBUNIT TIM17 (PTHR10485)
BKN20005	FBgn0015933	FBgn0261397	CG2146	didum	dilute class unconventional myos	0.1	MYOSIN V (PTHR13140:SF32)
BKN21030	FBgn0030724	FBgn0030724	CG9212	Nipsnap	Nipsnap	0.1	NIPSNAP 2 (PTHR21017:SF5)
BKN26937	FBgn0031140	FBgn0031140	CG12092	NPC1b	NPC1b	0.1	NIEMANN-PICK C1 (PTHR10796:SF35)
BKN32629	FBgn0037798	FBgn0037798	CG12817	CG12817	-	0.1	MULTIPLE COAGULATION FACTOR DEFICIENCY PROTEIN 2 (PTHR23104)
BKN22546	FBgn0031955	FBgn0031955	CG14535	CG14535	-	0.1	KINESIN-RELATED PROTEIN (PTHR16012:SF199)
BKN31178	FBgn0039900	FBgn0039900	CG2381	Syt7	Syt7	0.1	gb def: CG2381-PA, isoform A (Cg2381-pb, isoform b) (RE44043p) (PTHR10024:SF30)
BKN27578	FBgn0028382	FBgn0028382	CG4886	cyp33	cyclophilin-33	0.1	PEPTIDYL-PROLYL CIS-TRANS ISOMERASE E, PPIE (PTHR11071:SF72)
BKN23244	FBgn0032520	FBgn0032520	CG10859	CG10859	-	0.2	AXONEMAL DYNEIN INTERMEDIATE CHAIN (PTHR12442:SF7)
BKN22264	FBgn0035756	FBgn0035756	CG32381	unc-13-4A	unc-13-4A	0.2	MUNC13-4 (PTHR15015:SF1)
BKN28226	FBgn0011509	FBgn0011509	CG33162	SrpRbeta	Signal recognition particle recept	0.2	SIGNAL RECOGNITION PARTICLE RECEPTOR BETA SUBUNIT RELATED (PTHR19326)
BKN29882	FBgn0035693	FBgn0035693	CG8219	CG8219	-	0.2	IMPORTIN BETA-2 (PTHR10527:SF3)
BKN26671	FBgn0087040	FBgn0087040	CG8308	alphaTub67C	alpha-Tubulin at 67C	0.2	TUBULIN ALPHA CHAIN (PTHR11588:SF10)
BKN32102	FBgn0051118	FBgn0051118	CG31118	RabX4	RabX4	0.2	RAS-LIKE GTP-BINDING PROTEIN-RELATED (PTHR11708:SF235)
BKN32184	FBgn0053555	FBgn0053555	CG33555	btsz	bitesize	0.2	BITESIZE ISOFORM (PTHR10024:SF12)
BKN21173	FBgn0024320	FBgn0024320	CG5722	Npc1a	Niemann-Pick type C-1a	0.2	NIEMANN-PICK C1 (PTHR10796:SF35)
BKN21681	FBgn0028401	FBgn0028401	CG9474	Snap24	Synapse protein 24	0.2	SYNAPTOSOMAL ASSOCIATED PROTEIN (PTHR19305)
BKN33637	FBgn0053555	FBgn0053555	CG33555	btsz	bitesize	0.2	BITESIZE ISOFORM (PTHR10024:SF12)
BKN30135	FBgn0061200	FBgn0061200	CG4453	Nup153	Nup153	0.2	NUCLEAR PORE COMPLEX PROTEIN NUP153 (PTHR23193:SF4)
BKN25262	FBgn0016983	FBgn0016983	CG8571	smid	smallminded	0.2	NUCLEAR VALOSIN-CONTAINING PROTEIN-LIKE (PTHR23077:SF16)
BKN21493	FBgn0031921	FBgn0260486	CG42533	CG42533	-	0.2	DOCK-9, 10, 11 (PTHR23317:SF26)
BKN20773	FBgn0032476	FBgn0032476	CG5439	CG5439	-	0.2	KINESIN-LIKE PROTEIN KIF4 (PTHR16012:SF200)
BKN26808	FBgn0015831	FBgn0015831	CG1279	Rtnl2	Rtnl2	0.2	RETICULON-RELATED (PTHR10994:SF18)
BKN27707	FBgn0039020	FBgn0039020	CG17141	CG17141	-	0.2	GTP-BINDING PROTEIN-RELATED (PTHR11089:SF4)
BKN22276	FBgn0034792	FBgn0034792	CG3499	CG3499	-	0.2	CELL DIVISION PROTEIN FTSH HOMOLOG (PTHR23076:SF10)
BKN28677	FBgn0259246	FBgn0259246	CG42344	brp	bruchpilot	0.2	RAB6-INTERACTING PROTEIN 2/ELKS/ERC/CAST (PTHR18861)
BKN22067	FBgn0036920	FBgn0036920	CG8004	CG8004	-	0.2	METAXIN 2 (PTHR12289:SF11)

BKN21292	FBgn0036882	FBgn0036882	CG9279	CG9279	-	0.2		DYNACTIN 1 (PTHR18916:SF2)
BKN21704	FBgn0024509	FBgn0024509	CG6773	sec13	sec13	0.3		PROTEIN TRANSPORT PROTEIN SEC13 (PTHR11024:SF2)
BKN22767	FBgn0052350	FBgn0052350	CG32350	CG32350	-	0.3		VACUOLAR MEMBRANE PROTEIN PEP5, 11 (PTHR23323:SF24)
BKN21113	FBgn0030753	FBgn0030753	CG4420	CG4420	-	0.3		DNA-DAMAGE INDUCIBLE PROTEIN DDI1 (V-SNARE-MASTER 1) (PTHR12917:SF1)
BKN22660	FBgn0031710	FBgn0031710	CG7371	CG7371	-	0.3		VACUOLAR PROTEIN SORTING 52 (PTHR14190:SF5)
BKN27571	FBgn0005586	FBgn0005586	CG7576	Rab3	Rab-protein 3	0.3		RAS-RELATED PROTEIN RAB-3 (PTHR11708:SF222)
BKN30823	FBgn0035366	FBgn0035366	CG16976	CG16976	-	0.3		RAB3 INTERACTING MOLECULE-RELATED (PTHR12157:SF5)
BKN28723	FBgn0028341	FBgn0028341	CG32697	l(1)G0232	lethal (1) G0232	0.3		PROTEIN-TYROSINE PHOSPHATASE N9 (PTHR19134:SF76)
BKN20157	FBgn0025742	FBgn0025742	CG9115	mtm	myotubularin	0.3		MTM1, MTMR1,2 (PTHR10807:SF7)
BKN28034	FBgn0034913	FBgn0034913	CG11173	usnp	ubisnap	0.3		SYNAPTOSOMAL ASSOCIATED PROTEIN (PTHR19305)
BKN21990	FBgn0029512	FBgn0029512	CG12276	Aos1	Aos1	0.3		SUMO-1-ACTIVATING ENZYME E1A (PTHR10953:SF30)
BKN28039	FBgn0031106	FBgn0031106	CG1467	Syx16	Syntaxin 16	0.3		SYNTAXIN 16 (PTHR19957:SF5)
BKN29851	FBgn0014018	FBgn0014018	CG11992	Rel	Relish	0.3		NUCLEAR FACTOR NF-KAPPA-B P110 SUBUNIT (PTHR18958:SF235)
BKN21603	FBgn0032052	FBgn0032052	CG13089	CG13089	-	0.3		GPI TRANSAMIDASE COMPONENT PIG-U (PTHR13121)
BKN21874	FBgn0029964	FBgn0029964	CG1409	CG1409	-	0.3		MITOCHONDRIA ASSOCIATED GRANULOCYTE MOLECULE (PTHR12388)
BKN28519	FBgn0025617	FBgn0260855	CG7359	Sec22	-	0.3		SNARE PROTEIN SEC22 (PTHR21136:SF4)
BKN29256	FBgn0032060	FBgn0260861	CG9298	Trs23	-	0.3	Yes	SYNBINDIN (PTHR23249:SF2)
BKN27576	FBgn0033452	FBgn0033452	CG1599	CG1599	-	0.3		VAMP-7 (PTHR21136:SF8)
BKN27928	FBgn0250791	FBgn0250791	CG6625	Snap	Soluble NSF attachment protein	0.3		ALPHA-SOLUBLE NSF ATTACHMENT PROTEIN (SNAP-ALPHA) (PTHR13768:SF8)
BKN30076	FBgn0037325	FBgn0037325	CG12147	CG12147	-	0.4		CASEIN KINASE (PTHR11909:SF18)
BKN25982	FBgn0026313	FBgn0026313	CG5675	X11L	X11L	0.4	Yes	AMYLOID BETA A4 PROTEIN RELATED (PTHR12345:SF2)
BKN21894	FBgn0011745	FBgn0011745	CG6174	Arp87C	Actin-related protein 87C	0.4		ACTIN-RELATED PROTEIN (PTHR11937:SF46)
BKN29421	FBgn0031600	FBgn0031600	CG3652	CG3652	-	0.4		YIP1-RELATED (PTHR21236:SF1)
BKN20713	FBgn0038683	FBgn0038683	CG11779	CG11779	-	0.4		MITOCHONDRIAL INNER MEMBRANE TRANSLOCASE SUBUNIT TIM44 (PTHR10721:SF1)
BKN21663	FBgn0036643	FBgn0036643	CG4109	Syx8	Syntaxin 8	0.4		SYNTAXIN 8 (PTHR12380:SF6)
BKN20261	FBgn0033812	FBgn0033812	CG4663	CG4663	-	0.4		PEROXISOMAL MEMBRANE PROTEIN PEX13 (PTHR19332)
BKN30235	FBgn0039157	FBgn0039157	CG5501	Myo95E	Myosin 95E	0.4		UNCONVENTIONAL MYOSIN 95E ISOFORM (PTHR13140:SF17)
BKN28985	FBgn0030792	FBgn0030792	CG4789	CG4789	-	0.4		RAB, MEMBER OF RAS ONCOGENE FAMILY (PTHR11708:SF276)
BKN23989	FBgn0000121	FBgn0000121	CG5962	Arr2	Arrestin 2	0.4		PHOSRESTIN I (ARRESTIN B) (ARRESTIN 2) (PTHR11792:SF4)
BKN22275	FBgn0039152	FBgn0039152	CG6129	CG6129	-	0.4		GOLGI COMPLEX-ASSOCIATED PROTEIN OF 170 KDA (GCP170) (PTHR23159:SF4)
BKN21193	FBgn0014411	FBgn0014411	CG14804	Vps26	Vacuolar protein sorting 26	0.4		VACUOLAR PROTEIN SORTING 26, VPS26 (PTHR12233:SF1)
BKN31455	FBgn0259246	FBgn0259246	CG42344	brp	bruchpilot	0.4		RAB6-INTERACTING PROTEIN 2/ELKS/ERC/CAST (PTHR18861)
BKN21940	FBgn0027518	FBgn0027518	CG7609	CG7609	-	0.4		PEROXISOMAL TARGETING SIGNAL 2 RECEPTOR (PTHR22850:SF4)
BKN27728	FBgn0004432	FBgn0004432	CG9916	Cyp1	Cyclophilin 1	0.4		PEPTIDYL-PROLYL CIS-TRANS ISOMERASE F, PPIF (PTHR11071:SF73)
BKN22537	FBgn0086347	FBgn0086347	CG7438	Myo31DF	Myosin 31DF	0.4		MYOSIN I (PTHR13140:SF31)
BKN20130	FBgn0035540	FBgn0035540	CG7452	Syx17	Syntaxin 17	0.4		SYNTAXIN 17 (PTHR19957:SF1)
BKN32988	FBgn0038205	FBgn0038205	CG9913	Kif19A	Kif19A	0.4		KINESIN-RELATED (PTHR16012:SF50)
BKN28653	FBgn0004242	FBgn0004242	CG3139	Syt1	Synaptotagmin 1	0.5		SYNAPTOTAGMIN, INSECTS (PTHR10024:SF38)
BKN30793	FBgn0003889	FBgn0003889	CG9359	betaTub85D	beta-Tubulin at 85D	0.5		TUBULIN BETA CHAIN (PTHR11588:SF9)
BKN28971	FBgn0034446	FBgn0034446	CG7735	CG7735	-	0.5		ADP-RIBOSYLATION FACTOR-LIKE 6, ARL6 (PTHR11711:SF21)
BKN31128	FBgn0033067	FBgn0033067	CG11211	CG11211	-	0.5		MACROPHAGE MANNOSE RECEPTOR (PTHR22803:SF17)
BKN30480	FBgn0031254	FBgn0031254	CG13692	CG13692	-	0.5		ADP-RIBOSYLATION FACTOR-LIKE, ARL (PTHR11711:SF10)
BKN28841	FBgn0032191	FBgn0032191	CG5734	CG5734	-	0.5		gb def: CG5734-PA (LD15323p) (PTHR12431:SF3)
BKN21991	FBgn0019968	FBgn0019968	CG8183	Khc-73	Kinesin-73	0.5		KINESIN-73 (PTHR16012:SF67)
BKN29365	FBgn0037551	FBgn0037551	CG7891	Gie	novel GTPase indispensable for	0.5		ADP-RIBOSYLATION FACTOR-LIKE 10, ARL10 (PTHR11711:SF20)
BKN22534	FBgn0040206	FBgn0040206	CG1487	krz	kurtz	0.5		BETA-ARRESTIN 1, 2 (PTHR11792:SF5)
BKN32041	FBgn0259210	FBgn0259210	CG42310	prom	prominin	0.5		PROMININ (PROM) PROTEIN (PTHR22730)
BKN20382	FBgn0011741	FBgn0011741	CG11678	Actr13E	Actin-related protein 13E	0.5		ACTIN-LIKE PROTEIN (PTHR11937:SF21)
BKN33589	FBgn0016976	FBgn0016975&FBgn0016976	CG12500	stnA	stoned A	0.5		STONED-RELATED (PTHR11998:SF1)
BKN32515	FBgn0052683	FBgn0052683	CG32683	CG32683	-	0.5		ARRESTIN-RELATED (PTHR11792:SF1)
BKN21582	FBgn0086685	FBgn0086685	CG2095	sec8	sec8	0.6		EXOCYST COMPONENT SEC8 (PTHR14146)
BKN22180	FBgn0015794	FBgn0015794	CG3129	Rab-RP4	Rab-related protein 4	0.6		RAS-RELATED PROTEIN RAB-18 (PTHR11708:SF245)

BKN21043	FBgn0004387	FBgn0004387	CG5658	Klp98A	Kinesin-like protein at 98A	0.6		KINESIN-LIKE PROTEIN KIF14, KIF16 (PTHR16012:SF178)
BKN29279	FBgn0086372	FBgn0086372	CG2520	lap	like-AP180	0.6		PHOSPHATIDYLINOSITOL-BINDING CLATHRIN ASSEMBLY PROTEIN (PTHR22951:SF3)
BKN20810	FBgn0000986	FBgn0000986	CG2637	Fs(2)Ket	Female sterile (2) Ketel	0.6	Yes	IMPORTIN BETA-1 (PTHR10527:SF1)
BKN28126	FBgn0013750	FBgn0013750	CG8156	Arf51F	ADP ribosylation factor 51F	0.6	Yes	ADP-RIBOSYLATION FACTOR, ARF (PTHR11711:SF30)
BKN27892	FBgn0030276	FBgn0030276	CG1938	Dlic	Dynein light intermediate chain	0.6		DYNEIN LIGHT INTERMEDIATE CHAIN (PTHR12688)
BKN31728	FBgn0024980	FBgn0024980	CG2715	Syx4	Syntaxin 4	0.6		SYNTAXIN 4, INSECT (PTHR19957:SF19)
BKN20315	FBgn0010660	FBgn0010660	CG3820	Nup214	Nup214	0.6		NUCLEAR PORE COMPLEX PROTEIN NUP214 (PTHR23193:SF2)
BKN20255	FBgn0029959	FBgn0029959	CG12156	Rab39	Rab39	0.6		RAS-RELATED PROTEIN RAB-39 (PTHR11708:SF250)
BKN20162	FBgn0040087	FBgn0040087	CG1422	p115	p115	0.6		VESICLE DOCKING PROTEIN P115 (PTHR10013)
BKN28484	FBgn0016041	FBgn0016041	CG12157	Tom40	Translocase of outer membrane	0.6		MITOCHONDRIAL IMPORT RECEPTOR SUBUNIT TOM40 (PTHR10802)
BKN23282	FBgn0026189	FBgn0026189	CG7740	prominin-like	prominin-like	0.6		PROMININ (PROM) PROTEIN (PTHR22730)
BKN28950	FBgn0003884	FBgn0003884	CG1913	alphaTub84B	alpha-Tubulin at 84B	0.6		TUBULIN ALPHA CHAIN (PTHR11588:SF10)
BKN29577	FBgn0259246	FBgn0259246	CG42344	brp	bruchpilot	0.6		RAB6-INTERACTING PROTEIN 2/ELKS/ERC/CAST (PTHR18861)
BKN22450	FBgn0035892	FBgn0035892	CG7127	exo70	exo70	0.6		EXOCYST COMPLEX PROTEIN EXO70 (PTHR12542:SF7)
BKN22714	FBgn0035922	FBgn0035922	CG6486	CG6486	-	0.7		PEROXISOMAL TARGETING SIGNAL 2 RECEPTOR (PTHR22850:SF4)
BKN27695	FBgn0002567	FBgn0002567	CG8024	ltd	lightoid	0.7		RAS-RELATED PROTEIN RAB-32 AND 38 (PTHR11708:SF264)
BKN20245	FBgn0033339	FBgn0033339	CG8266	sec31	sec31	0.7		SEC31 (PTHR13923:SF3)
BKN32162	FBgn0035364	NA	NA	NA	NA	0.7		REGULATING SYNAPTIC MEMBRANE EXOCYTOSIS PROTEIN (PTHR12157:SF4)
BKN28150	FBgn0033264	FBgn0033264	CG2158	CG2158	-	0.7		NUCLEOPORIN 50 (PTHR13118)
BKN28806	FBgn0003887	FBgn0003887	CG9277	betaTub56D	beta-Tubulin at 56D	0.7		TUBULIN BETA CHAIN (PTHR11588:SF9)
BKN28766	FBgn0086779	FBgn0086779	CG11628	step	steppke	0.7		CYTOHESIN (GUANINE NUCLEOTIDE-EXCHANGE PROTEIN) (PTHR10663:SF13)
BKN33360	FBgn0030755	FBgn0030755	CG9906	CG9906	-	0.7		CALNEXIN (PTHR11073:SF1)
BKN21670	FBgn0036195	FBgn0036195	CG6053	CG6053	-	0.7		AXONEMAL DYNEIN INTERMEDIATE CHAIN (PTHR12442:SF7)
BKN21699	FBgn0010235	FBgn0010235	CG5433	Klc	Kinesin light chain	0.7		KINESIN LIGHT CHAIN 1, 2, 8 (PTHR19959:SF20)
BKN28556	FBgn0015797	FBgn0015797	CG6601	Rab6	Rab-protein 6	0.7		RAS-RELATED PROTEIN RAB-6 (PTHR11708:SF256)
BKN27774	FBgn0015793	FBgn0015793	CG7062	Rab-RP3	Rab-related protein 3	0.7		RAS-RELATED PROTEIN RAB-19 (PTHR11708:SF242)
BKN22053	FBgn0033109	FBgn0033109	CG9446	coro	coro	0.7		CORONIN (PTHR10856)
BKN21996	FBgn0029976	FBgn0029976	CG1514	CG1514	-	0.7		SORTING NEXIN 25 (PTHR22775:SF6)
BKN21971	FBgn0015816	FBgn0015816	CG3539	Slh	SLY-1 homologous	0.8		SLY1-RELATED (PTHR11679:SF2)
BKN27602	FBgn0015277	FBgn0015277	CG5373	Pi3K59F	Phosphatidylinositol 3 kinase 59F	0.8		PHOSPHATIDYLINOSITOL 3-KINASE CLASS 3 (PTHR10048:SF7)
BKN23079	FBgn0038574	FBgn0261532	CG7212	cdm	cadmus	0.8		IMPORTIN 13 (PTHR12363:SF6)
BKN25419	FBgn0035202	FBgn0035202	CG9139	CG9139	-	0.8		RAB5 GDP/GTP EXCHANGE FACTOR (RABEX-5) (PTHR23101:SF2)
BKN21130	FBgn0026207	FBgn0026207	CG6819	mbo	members only	0.8		NUCLEOPORIN NUP84-RELATED (PTHR13257)
BKN27930	FBgn0024889	FBgn0024889	CG8548	Kap-alpha1	karyopherin alpha1	0.8		IMPORTIN ALPHA (PTHR23316)
BKN28425	FBgn0034535	FBgn0034535	CG11110	CG11110	-	0.8		MITOCHONDRIAL INNER MEMBRANE PROTEASE SUBUNIT 2 (PTHR12383:SF3)
BKN23013	FBgn0032465	FBgn0032465	CG12404	CG12404	-	0.8		GOLGI MEMBRANE PROTEIN SB140 (YIP1B) (PTHR21236:SF2)
BKN21801	FBgn0031456	FBgn0031456	CG2848	Trn-SR	Transportin-Serine/Arginine rich	0.8	Yes	TRANSPORTIN 3 (PTHR12363:SF5)
BKN27403	FBgn0040340	FBgn0040340	CG11642	TRAM	TRAM	0.8		TRANSLOCATION ASSOCIATED MEMBRANE PROTEIN, INSECT (PTHR12371:SF2)
BKN22851	FBgn0031051	FBgn0031051	CG12234	Ranbp21	Ranbp21	0.8		EXPORTIN 5 (PTHR11223:SF3)
BKN28633	FBgn0005586	FBgn0005586	CG7576	Rab3	Rab-protein 3	0.8		RAS-RELATED PROTEIN RAB-3 (PTHR11708:SF222)
BKN22242	FBgn0000482	FBgn0000482	CG3093	dor	deep orange	0.9		VACUOLAR MEMBRANE PROTEIN PEP3, 18 (PTHR23323:SF25)
BKN22979	FBgn0034744	FBgn0034744	CG4071	Vps20	Vacuolar protein sorting 20	0.9		SNF7 - RELATED (PTHR22761)
BKN22944	FBgn0039379	FBgn0039379	CG5886	CG5886	-	0.9		TAXILIN (PTHR16127:SF9)
BKN26484	FBgn0038565	FBgn0038565	CG7794	CG7794	-	0.9		TUBULIN ALPHA CHAIN (PTHR11588:SF10)
BKN31650	FBgn0036341	FBgn0036341	CG11278	Syx13	Syntaxin 13	0.9		SYNTAXIN-RELATED (PTHR19957:SF9)
BKN20197	FBgn0025802	FBgn0025802	CG6939	Sbf	SET domain binding factor	0.9	Yes	MYOTUBULARIN-RELATED PROTEIN 5, 13 (PTHR10807:SF1)
BKN21904	FBgn0035317	FBgn0035317	CG13809	osm-1	osm-1	0.9		OSM-1 (PTHR15722:SF3)
BKN28479	FBgn0035165	FBgn0035165	CG13887	CG13887	-	0.9		BCR-ASSOCIATED PROTEIN, BAP (PTHR12701:SF3)
BKN27806	FBgn0025382	FBgn0025382	CG14791	Rab27	Rab27	0.9		RAS-RELATED PROTEIN RAB-27 (PTHR11708:SF223)
BKN34054	FBgn0085426	FBgn0085426	CG34397	Rgk3	Rgk3	0.9		GTPASE RAB-RELATED (PTHR11708:SF304)
BKN25646	FBgn0001108	FBgn0001108	CG9206	Gl	Glued	0.9		DYNACTIN 1 (PTHR18916:SF2)
BKN28301	FBgn0015622	FBgn0015622	CG11958	Cnx99A	Calnexin 99A	0.9		CALNEXIN (PTHR11073:SF1)

BKN21198	FBgn0037710	FBgn0037710	CG9393	CG9393	-	0.9		METAXIN 1,3 (PTHR12289:SF16)
BKN30694	FBgn0010097	FBgn0010097	CG17566	gammaTub37C	gamma-Tubulin at 37C	0.9		TUBULIN GAMMA CHAIN (PTHR11588:SF7)
BKN20939	FBgn0010349	FBgn0010349	CG7507	Dhc64C	Dynein heavy chain 64C	0.9		CYTOPLASMIC DYNEIN HEAVY CHAIN (PTHR10676:SF28)
BKN25863	FBgn0027537	FBgn0027537	CG11092	CG11092	-	0.9		NUCLEAR PORE COMPLEX PROTEIN NUP93 (PTHR11225)
BKN21557	FBgn0021795	FBgn0021795	CG9035	Tapdelta	Translocon-associated protein de	1.0		TRANSLOCON-ASSOCIATED PROTEIN, DELTA SUBUNIT (PTHR12731)
BKN30427	FBgn0086913	FBgn0086913	CG34410	Rab26	Rab26	1.0		RAS-RELATED PROTEIN RAB-37 AND 26 (PTHR11708:SF209)
BKN28684	FBgn0045866	FBgn0045866	CG11785	bai	baiser	1.0	Yes	TRANSMEMBRANE PROTEIN TMP21-RELATED (PTHR22811:SF6)
BKN29087	FBgn0003654	FBgn0003654	CG18000	sw	short wing	1.0		DYNEIN INTERMEDIATE CHAIN DHIC 1,2 (PTHR12442:SF22)
BKN27824	FBgn0020503	FBgn0020503	CG5020	CLIP-190	Cytoplasmic linker protein 190	1.0		RESTIN-LIKE 2 (PTHR18916:SF8)
BKN20042	FBgn0086250	FBgn0261276	CG8479	opa1-like	optic atrophy 1-like	1.0		OPTIC ATROPHY 1-LIKE PROTEIN, OPA1 (PTHR11566:SF8)
BKN22239	FBgn0030735	FBgn0030735	CG3632	CG3632	-	1.0		MYOTUBULARIN-RELATED PROTEIN 3, 4 (PTHR10807:SF5)
BKN21541	FBgn0033401	FBgn0033401	CG1968	CG1968	-	1.0		COMPONENT OF OLIGOMERIC GOLGI COMPLEX 6 (PTHR21506)
BKN28318	FBgn0034118	FBgn0034118	CG6251	Nup62	Nup62	1.0		NUCLEAR PORE GLYCOPROTEIN P62-RELATED (PTHR12084)
BKN25442	FBgn0035399	FBgn0035399	CG14955	CG14955	-	1.0		PROMININ (PROM) PROTEIN (PTHR22730)
BKN27791	FBgn0243513	FBgn0243513	CG17262	cnir	cornichon related	1.0		ER-DERIVED VESICLES PROTEIN-RELATED (PTHR12290:SF4)
BKN22108	FBgn0035945	FBgn0035945	CG5026	CG5026	-	1.0		MYOTUBULARIN-RELATED PROTEIN 9 (PTHR10807:SF9)
BKN23556	FBgn0036497	FBgn0036497	CG7815	ran-like	ran-like	1.0		GTP-BINDING NUCLEAR PROTEIN RAN (PTHR11708:SF269)
BKN27375	FBgn0016693	FBgn0016693	CG6148	Past1	Putative Achaete Scute Target 1	1.0		EH DOMAIN CONTAINING/PAST 1, 2, 3 (PTHR11216:SF31)
BKN23875	FBgn0053547	FBgn0053547	CG33547	Rim	Rim	1.0		RAB3 INTERACTING MOLECULE (PTHR12157:SF3)
BKN25179	FBgn0038355	FBgn0038355	CG4520	CG4520	-	1.1		MITOCHONDRIAL IMPORT RECEPTOR SUBUNIT TOM40 (PTHR10802)
BKN21808	FBgn0025725	FBgn0025725	CG7961	alphaCop	alpha-coatomer protein	1.1	Yes	COATOMER ALPHA SUBUNIT (PTHR19876:SF1)
BKN29991	FBgn0035256	FBgn0035256	CG13930	CG13930	-	1.1		gb def: CG13930-PA (PTHR12442:SF9)
BKN20734	FBgn0001084	FBgn0001084	CG13396	fy	fuzzy	1.1		INTRACELLULAR TRAFFIC PROTEIN-RELATED (PTHR13559)
BKN30490	FBgn0259210	FBgn0259210	CG42310	prom	prominin	1.1		PROMININ (PROM) PROTEIN (PTHR22730)
BKN20478	FBgn0034243	FBgn0034243	CG6501	ns2	nucleostemin 2	1.1	Yes	GTP-BINDING PROTEIN 2 (PTHR11089:SF9)
BKN28228	FBgn0033247	FBgn0033247	CG8722	Nup44A	Nup44A	1.1		NUCLEOPORIN SEH1 (SEC13-LIKE PROTEIN) (PTHR11024:SF3)
BKN31671	FBgn0015372	FBgn0015372	CG3870	chrw	chrowded	1.1		RAS-RELATED PROTEIN RAB-5-RELATED (PTHR11708:SF255)
BKN20656	FBgn0037894	FBgn0037894	CG5252	Ranbp9	Ranbp9	1.1		IMPORTIN 9 (IMP9) (RAN-BINDING PROTEIN 9) (PTHR10997:SF9)
BKN29102	FBgn0030122	FBgn0030122	CG16892	CG16892	-	1.1		ALADIN/ADRACALIN/AAAS (PTHR14494)
BKN33913	FBgn0038829	FBgn0038829	CG17271	CG17271	-	1.1		MULTIPLE COAGULATION FACTOR DEFICIENCY PROTEIN 2 (PTHR23104)
BKN20861	FBgn0033206	FBgn0033206	CG12042	CG12042	-	1.2		DYNACTIN P62 SUBUNIT (PTHR13034)
BKN21447	FBgn0010348	FBgn0010348	CG8385	Arf79F	ADP ribosylation factor 79F	1.2		ADP-RIBOSYLATION FACTOR, ARF (PTHR11711:SF30)
BKN22344	FBgn0011744	FBgn0011744	CG7558	Arp66B	Actin-related protein 66B	1.2		ACTIN-LIKE PROTEIN 3, ACL3 (PTHR11937:SF31)
BKN21048	FBgn0011708	FBgn0011708	CG42114	Syx5	Syntaxin 5	1.2		SYNTAXIN 5 (PTHR19957:SF3)
BKN21773	FBgn0027605	FBgn0027605	CG6842	Vps4	Vacuolar protein sorting 4	1.2		SKD/VACUOLAR SORTING (PTHR23074:SF3)
BKN21378	FBgn0026378	FBgn0026378	CG8432	Rep	Rab escort protein	1.2		RAB GDP-DISSOCIATION INHIBITOR (PTHR11787)
BKN28072	FBgn0015513	FBgn0015513	CG10379	mbc	myoblast city	1.2		DOCK-1,2,5 (PTHR23317:SF29)
BKN22917	FBgn0003210	FBgn0003210	CG11427	rb	ruby	1.3		ADAPTER-RELATED PROTEIN COMPLEX 3, BETA SUBUNIT (PTHR11134:SF1)
BKN28490	FBgn0035027	FBgn0035027	CG3511	CG3511	-	1.3		PEPTIDYL-PROLYL CIS-TRANS ISOMERASE-LIKE (PTHR11071:SF40)
BKN28332	FBgn0052392	FBgn0052392	CG32392	CG32392	-	1.4		FLAGELLAR RADIAL SPOKE PROTEIN 3 (PTHR21648)
BKN20670	FBgn0086475	FBgn0086475	CG3885	sec3	sec3	1.4		EXOCYST COMPLEX COMPONENT SEC3 (PTHR16092:SF1)
BKN20363	FBgn0034691	FBgn0034691	CG6562	synj	synaptojanin	1.4		SYNAPTOJANIN (PTHR11200:SF10)
BKN21123	FBgn0030412	FBgn0030412	CG17762	tomosyn	tomosyn	1.4		TOMOSYN (PTHR10241:SF7)
BKN20375	FBgn0032880	FBgn0032880	CG9318	CG9318	-	1.5		TRANSMEMBRANE 9 SUPERFAMILY MEMBER 2 (PTHR10766:SF13)
BKN31557	FBgn0034312	FBgn0034312	CG10916	CG10916	-	1.5		ZN/RING FINGER PROTEIN 2 (PTHR22937:SF6)
BKN28022	FBgn0028582	FBgn0028582	CG8532	lqf	liquid facets	1.5		LIQUID FACETS (PTHR12276:SF13)
BKN32748	FBgn0037310	FBgn0037310	CG1158	Tim17b1	Tim17b1	1.5		MITOCHONDRIAL INNER MEMBRANE TRANSLOCASE SUBUNIT TIM17 (PTHR10485)
BKN28910	FBgn0011742	FBgn0011742	CG9901	Arp14D	Actin-related protein 14D	1.5		ACTIN-RELATED PROTEIN 2, ARP2 (PTHR11937:SF37)
BKN28713	FBgn0031882	FBgn0031882	CG9100	Rab30	Rab30	1.6		RAS-RELATED PROTEIN RAB-30 (PTHR11708:SF244)
BKN32037	FBgn0067861	FBgn0067861	CG9580	Sdic1	Sperm-specific dynein intermedi	1.6		DYNEIN INTERMEDIATE CHAIN DHIC 1,2 (PTHR12442:SF22)
BKN29148	FBgn0034753	FBgn0034753	CG2852	CG2852	-	1.6		PEPTIDYL-PROLYL CIS-TRANS ISOMERASE (CYCLOPHILIN) (PTHR11071:SF62)
BKN21232	FBgn0028541	FBgn0028541	CG7364	TM9SF4	-	1.7	Yes	TRANSMEMBRANE 9 SUPERFAMILY PROTEIN MEMBER 4 (PTHR10766:SF12)

BKN33351	FBgn0003660	FBgn0003660	CG12210	Syb	Synaptobrevin	1.7		SYNAPTOBREVIN (PTHR21136:SF21)
BKN22197	FBgn0039402	FBgn0039402	CG14542	vps2	vps2	1.7		SNF7-LIKE PROTEIN (BC-2) (PTHR10476:SF4)
BKN20346	FBgn0025724	FBgn0025724	CG6699	beta'Cop	beta'-coatomer protein	1.7	Yes	COATOMER BETA SUBUNIT (PTHR19876:SF2)
BKN20652	FBgn0033039	FBgn0033039	CG7897	gp210	gp210	1.7		NUCLEAR PORE MEMBRANE GLYCOPROTEIN GP210-RELATED (PTHR23019)
BKN22363	FBgn0023388	FBgn0023388	CG1099	Dap160	Dynamin associated protein 160	1.8		DYNAMIN-ASSOCIATED PROTEIN (PTHR11216:SF25)
BKN23509	FBgn0029993	FBgn0029993	CG1571	CG1571	-	2.1		AXONEMAL DYNEIN INTERMEDIATE CHAIN (PTHR12442:SF7)
BKN22991	FBgn0014010	FBgn0014010	CG3664	Rab5	Rab-protein 5	2.2		RAS-RELATED PROTEIN RAB-5 (PTHR11708:SF254)
BKN22967	FBgn0024754	FBgn0024754	CG8200	Flo	flotillin	2.3		FLOTILLIN-1 (PTHR13806:SF8)
BKN22645	FBgn0053180	FBgn0053180	CG33180	Ranbp16	Ranbp16	2.3		EXPORTIN 7-RELATED / RAN BINDING PROTEIN 16,17 (PTHR12596:SF2)
BKN20365	FBgn0025716	FBgn0025716	CG6546	Bap55	Brahma associated protein 55kD	2.4		ACTIN-LIKE PROTEIN 6, ACL6 (PTHR11937:SF32)
BKN20730	FBgn0028968	FBgn0028968	CG1528	gammaCop	gamma-coatomer protein	2.5	Yes	COATOMER GAMMA SUBUNIT (PTHR10261)
BKN20229	FBgn0052677	FBgn0052677	CG32677	X11Lbeta	X11Lbeta	2.5		AMYLOID BETA A4 PROTEIN RELATED (PTHR12345:SF2)
BKN28549	FBgn0020255	FBgn0020255	CG1404	ran	ran	2.6		GTP-BINDING NUCLEAR PROTEIN RAN (PTHR11708:SF269)
BKN28986	FBgn0028969	FBgn0028969	CG14813	deltaCOP	delta-coatomer protein	2.6	Yes	COATOMER DELTA SUBUNIT (PTHR10121)
BKN30547	FBgn0002945	FBgn0002945	CG11614	nkd	naked	2.7		
BKN20869	FBgn0034258	FBgn0034258	CG4954	eIF3-S8	eIF3-S8	3.6		EUKARYOTIC TRANSLATION INITIATION FACTOR 3, SUBUNIT 8 (PTHR13937)
BKN22633	FBgn0020497	FBgn0020497	CG13387	emb	embargoed	4.2	Yes	EXPORTIN 1 ((PTHR11223:SF2)
BKN27574	FBgn0015024	FBgn0015024	CG2028	Cklalpha	Casein kinase lalpha	11.3		

^a RNAi reagents designed based on Flybase Release 5.10, ^b calculated targets based on the latest Flybase release 5.25

Wnt/Wg components are indicated in bold. Genes are sorted by phenotypic strength. Viability phenotypes are indicated. RNAi sequence information is available at <http://www.genomernai.org>

Supplementary Table 2: in vivo RNAi phenotypes of p24 proteins

	opm RNAi 1	opm RNAi 2	CHOp24 RNAi 1	CHOp24 RNAi 2	p24-1 RNAi 1	p24-1 RNAi 2	eca RNAi 1	eca RNAi 2	bai	CG9308	p24-2	CG31787
act-Gal4	lethal	lethal	lethal	lethal	lethal	lethal	np	lethal *	lethal *	lethal *	np	np
vg-Gal4	np	wmd	np	wmd	wmd	np	np	blisters	np	np	blisters	np
nub-Gal4	wmd	lethal	np	lethal	lethal *	wmd (29)	np	wmd	unfolded wings	np	np	np
wg-Gal4	np	wmd	np	wmd (29)	wmd	np	np	wmd (29)	np	np	np	np

wmd wing margin defects/loss of sensory bristles

np no phenotype observed

***** pupal lethal

All crosses were kept at 25 degrees, unless otherwise indicated.

Supplementary Table 3: dsRNA template and qPCR primer sequences

Gene	Primer 1	Primer 2	
Gene-specific primers for RNAi probes			
GFP	ACCCTCGTGACCACCCTGACCTAC	GGACCATGTGATCGCGCTTCTCGT	
Rel	TTGTGCTCGATAAGTTTGCG	AATCAATAACCGCAAGTCGG	
pan	TTGATGAGCACGGAAGTCAG	ATTCCCAAGTGACTGAACCG	
arm	TTGCTGTTAGAGATGGCACG	ACGAGGAGATGGAGGGAGAT	
arr	CCTTGCACGGATTAACACCT	TCAGCGAATTGTGGACTCAG	
evi	CATCTCGTAGACCAGCGACA	GAAACGCTGTACTIONCATGCCA	
wg	GGAAATCCTCGTCCCCTTTA	GTTTCTCGTCGAGCAGTTCC	
fz	GCTGTGAACCCATCACCATA	CGCCAACTTTTAGTTCTAG	
dsh	ACGAGCGGCTAACACACTG	GGCGTTGATATTGCTCCATT	
pygo	GGGTGGTTCATCATATTTCGG	TCGGTATCATCGGTAGCCTC	
lgs	TCCACATTGCACACTGGTTT	CAGCGAGTCACAGGCAATAA	
nkd	GCGGCCATGTCGAAACC	CCCTTCGCAACATCTTGAC	
CK1 α	ACATTTACCTGGGCATGAGC	ATGTACTIONCCAAGCGTCCGAT	
opm #1	AAATGCATCCTCGTTGCTCT	ACCTGGACATCAGCTTCACC	
opm #2	TGGGAATGCCTGGGTTAGT	ATAGGCACTIONCTGTTTTGCCG	
syx5	AGCACGGACTTCAAGCAAAT	CGCCACATTCGTGTCAATAC	
dome	TACAGTTCTGGGTTCTGGG	GCTCACTIONGGGCTGATAAAGC	
Hh	TGACCTTGTAGAGCGCATTG	GCATCGAGGAGAAGAACCAG	
qPCR primer sequences			
			UPL*
rp49	CGGATCGATATGCTAAGCTGT	GCGCTTGTTTCGATCCGTA	105
opm	TTACCAATGCAAGCGATCTGG	CAGAAGTGCTGCGATGGA	15
CG5548	GTGGTGCCACCTTTGAC	CGATCATCACACGCTCCTT	3
dob	ATTGGTGCCCTCCACAGGT	CTTACGGTGACGGTGTGCT	120
GAPDH	AGCCACATCGCTCAGACAC	GCCCAATACGACCAAATCC	60
hTMED5	CTCGCTGGAGATCGAGTACC	TGTAATCACCAACTIONCTCAGTCTCTAC	15
^a Probe Numbers according to Exiqon ProbeLibrary for qPCR. http://www.universalprobelibrary.com			