

Table 4S: Meagchile rotundata protein cluster node hubs^a

Gene	Fly hit	Bee annotations	log2(fold_change)	Post-diapause
MROT_00000124	FBgn0031952	FASN Fatty acid synthase (Gallus gallus)	-3.20258	down-regulated
MROT_00000225	FBgn0000490	Nphs1 Nephin (Rattus norvegicus)	-3.1196	down-regulated
MROT_00000298	FBgn0038037	Cyp9b2 Cytochrome P450 9b2 (Drosophila melanogaster)	-2.35932	down-regulated
MROT_00000440	FBgn0027291	Cyp9f2 Probable cytochrome P450 9f2 (Drosophila melanogaster)	-2.27439	down-regulated
MROT_00000580	FBgn0027571	Cyp9f2 Probable cytochrome P450 9f2 (Drosophila melanogaster)	-1.76697	down-regulated
MROT_00001086	FBgn0003117	BRE1 E3 ubiquitin-protein ligase BRE1 (Debaryomyces hansenii)	-1.75173	down-regulated
MROT_00001087	FBgn0003720	Troponin C, isoform 2A (Homarus americanus)	-1.71327	down-regulated
MROT_00001571	FBgn0003748	Cyp9f2 Probable cytochrome P450 9f2 (Drosophila melanogaster)	-1.70911	down-regulated
MROT_00001689	FBgn0003205	ABCC5 Multidrug resistance-associated protein 5 (Homo sapiens)	-1.62425	down-regulated
MROT_00001934	FBgn0010382	Atplalpha Sodium/potassium-transporting ATPase subunit alpha (Drosophila melanogaster)	-1.53472	down-regulated
MROT_00002043	FBgn0013348	Hn Protein henna (Drosophila melanogaster)	-1.44249	down-regulated
MROT_00002200	FBgn0250906	tor Tyrosine-protein kinase receptor torso (Drosophila melanogaster)	-1.40385	down-regulated
MROT_00002219	FBgn0040237	Protein of unknown function	-1.33409	down-regulated
MROT_00002233	FBgn0036334	tre1 Trehalase (Pimpla hypochondriaca)	-1.33168	down-regulated
MROT_00002234	FBgn0015245	CG5009 Probable peroxisomal acyl-coenzyme A oxidase 1 (Drosophila melanogaster)	-1.3127	down-regulated
MROT_00002252	FBgn0013770	FBN3 Fibrillin-3 (Homo sapiens)	-1.27745	down-regulated
MROT_00002293	FBgn0000015	Poly [ADP-ribose] polymerase (Sarcophaga peregrina)	-1.26563	down-regulated
MROT_00002354	FBgn0026418	Transferrin (Blaberus discoidalis)	-1.26285	down-regulated
MROT_00002996	FBgn0001226	UTRN Utrophin (Homo sapiens)	-1.14326	down-regulated
MROT_00003084	FBgn0001139	GPSN2 Synaptic glycoprotein SC2 (Homo sapiens)	-1.11	down-regulated
MROT_00003085	FBgn0001139	Cathepsin L (Sarcophaga peregrina)	-1.03599	down-regulated
MROT_00003286	FBgn0000063	Pgk Phosphoglycerate kinase (Drosophila melanogaster)	-1.00456	down-regulated
MROT_00003313	FBgn0024250	TIAL1 Nucleolysin TIAR (Homo sapiens)	1.00306	up-regulated
MROT_00003330	FBgn0260855	CRIP1 Cysteine-rich protein 1 (Bos taurus)	1.03449	up-regulated
MROT_00003621	FBgn0051999	DNAJA1 DnaJ homolog subfamily A member 1 (Homo sapiens)	1.04241	up-regulated
MROT_00003658	FBgn0027592	CCNK Cyclin-K (Homo sapiens)	1.06334	up-regulated
MROT_00003885	FBgn0004837	Hsp60 60 kDa heat shock protein, mitochondrial (Drosophila melanogaster)	1.08927	up-regulated
MROT_00003914	FBgn0005649	MED14 Mediator of RNA polymerase II transcription subunit 14 (Aedes aegypti)	1.09013	up-regulated
MROT_00003924	FBgn0021872	bmp3 Bone morphogenetic protein 3 (Xenopus laevis)	1.10349	up-regulated
MROT_00003955	FBgn0035471	sec22b Vesicle-trafficking protein SEC22b-B (Danio rerio)	1.11383	up-regulated
MROT_00003983	FBgn0025674	Stip1 Stress-induced-phosphoprotein 1 (Mus musculus)	1.11842	up-regulated
MROT_00004241	FBgn0001233	Hspa4 Heat shock 70 kDa protein 4 (Rattus norvegicus)	1.13364	up-regulated
MROT_00004401	FBgn0001258	atad3 ATPase family AAA domain-containing protein 3 (Xenopus tropicalis)	1.14237	up-regulated
MROT_00004547	FBgn0038546	GPSM2 G-protein-signaling modulator 2 (Homo sapiens)	1.14706	up-regulated
MROT_00004614	FBgn0260003	I(1)G0156 Probable isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial (Drosophila melanogaster)	1.15035	up-regulated
MROT_00005007	FBgn0039562	Ing1 Inhibitor of growth protein 1 (Mus musculus)	1.15991	up-regulated
MROT_00005176	FBgn0003733	fl(2)d Pre-mRNA-splicing regulator female-lethal(2)D (Drosophila pseudoobscura pseudoobscura)	1.16954	up-regulated
MROT_00005299	FBgn0035145	ago F-box/WD repeat-containing protein 7 (Drosophila melanogaster)	1.1816	up-regulated
MROT_00005405	FBgn0039055	PAPD5 PAP-associated domain-containing protein 5 (Homo sapiens)	1.18728	up-regulated
MROT_00005563	FBgn0001219	l(2)eft Protein lethal(2)essential for life (Drosophila melanogaster)	1.19761	up-regulated
MROT_00005632	FBgn0027572	NOP58 Nucleolar protein 58 (Homo sapiens)	1.20008	up-regulated
MROT_00005780	FBgn0024542	RASSF2 Ras association domain-containing protein 2 (Homo sapiens)	1.22077	up-regulated
MROT_00005852	FBgn0040080	MPP6 MAGUK p55 subfamily member 6 (Homo sapiens)	1.24144	up-regulated
MROT_00005886	FBgn0250785	Protein of unknown function	1.2531	up-regulated
MROT_00006050	FBgn0022355	GIGYF2 PERQ amino acid-rich with GYF domain-containing protein 2 (Homo sapiens)	1.27347	up-regulated
MROT_00006110	FBgn0003748	Ras85D Ras-like protein 1 (Drosophila ananassae)	1.27966	up-regulated
MROT_00006116	FBgn0038037	Protein of unknown function	1.29777	up-regulated
MROT_00006118	FBgn0038037	clkA Probable serine/threonine-protein kinase clkA (Dictyostelium discoideum)	1.30156	up-regulated
MROT_00006120	FBgn0038037	CycE G1/S-specific cyclin-E (Drosophila melanogaster)	1.32208	up-regulated
MROT_00006182	FBgn0030049	MED15 Mediator of RNA polymerase II transcription subunit 15 (Aedes aegypti)	1.34429	up-regulated
MROT_00006282	FBgn0032456	Art4 Probable histone-arginine methyltransferase CARMER (Drosophila melanogaster)	1.34745	up-regulated
MROT_00006302	FBgn0005626	Su(H) Suppressor of hairless protein (Drosophila melanogaster)	1.35205	up-regulated
MROT_00006310	FBgn0001233	ZNF816A Zinc finger protein 816A (Homo sapiens)	1.38581	up-regulated
MROT_00006720	FBgn0003996	Hsp83 Heat shock protein 83 (Drosophila melanogaster)	1.42061	up-regulated
MROT_00006824	FBgn0039055	sty Protein sprouty (Drosophila melanogaster)	1.43461	up-regulated
MROT_00006989	FBgn0000490	st Protein scarlet (Drosophila melanogaster)	1.43769	up-regulated
MROT_00006997	FBgn0024352	HSP90AA1 Heat shock protein HSP 90-alpha (Bos taurus)	1.45189	up-regulated
MROT_00007126	FBgn0026196	Hsp90b1 Endoplasmic (Mus musculus)	1.45962	up-regulated
MROT_00007430	FBgn0243512	Trehalase (Apis mellifera)	1.49847	up-regulated
MROT_00007719	FBgn0051973	SJCHGC01960 10 kDa heat shock protein, mitochondrial (Schistosoma japonicum)	1.58271	up-regulated
MROT_00007771	FBgn0023526	gro Protein groucho (Drosophila melanogaster)	1.64834	up-regulated
MROT_00007931	FBgn0000662	Abd-B Homeobox protein abdominal-B (Drosophila melanogaster)	1.66451	up-regulated
MROT_00008258	FBgn0005630	Heat shock 70 kDa protein cognate 4 (Manduca sexta)	1.66585	up-regulated
MROT_00008398	FBgn0010226	DUSP10 Dual specificity protein phosphatase 10 (Homo sapiens)	1.70481	up-regulated
MROT_00008442	FBgn0039970	TCHH Trichohyalin (Homo sapiens)	1.79594	up-regulated
MROT_00008478	FBgn0038145	DNAJC3 DnaJ homolog subfamily C member 3 (Bos taurus)	1.81558	up-regulated
MROT_00008493	FBgn0014388	mph1 Serine/threonine-protein kinase mph1 (Schizosaccharomyces pombe)	1.83226	up-regulated
MROT_00008697	FBgn0024189	Ahsa1 Activator of 90 kDa heat shock protein ATPase homolog 1 (Mus musculus)	1.84541	up-regulated
MROT_00008704	FBgn0037770	ple Tyrosine 3-monoxygenase (Drosophila melanogaster)	1.8725	up-regulated
MROT_00008764	FBgn0010323	GstS1 Glutathione S-transferase (Anopheles gambiae)	1.89602	up-regulated
MROT_00008810	FBgn0034391	XPB1 X-box-binding protein 1 (Bos taurus)	1.96188	up-regulated
MROT_00008831	FBgn0041171	Protein of unknown function	1.98375	up-regulated
MROT_00008902	FBgn0002921	pnr GATA-binding factor A (Drosophila melanogaster)	2.15961	up-regulated
MROT_00009104	FBgn0051036	PTPDC1 Protein tyrosine phosphatase domain-containing protein 1 (Bos taurus)	2.23502	up-regulated
MROT_00009481	FBgn0001208	Impl3 L-lactate dehydrogenase (Drosophila melanogaster)	2.34219	up-regulated
MROT_00009815	FBgn0032961	gro Protein groucho (Drosophila melanogaster)	2.4548	up-regulated
MROT_00009892	FBgn0010247	BMP10 Bone morphogenetic protein 10 (Homo sapiens)	2.71889	up-regulated
MROT_00009937	FBgn0037718	Protein of unknown function	2.75353	up-regulated
MROT_00010097	FBgn0000524	NR2E3 Photoreceptor-specific nuclear receptor (Homo sapiens)	3.92655	up-regulated
MROT_00010197	FBgn0001624	Gsc Homeobox protein gooseoid (Drosophila melanogaster)	4.62463	up-regulated

^aAny node that has a number of neighbor genes >= 20 in the drosophila interaction network is assumed to be a hub node