

**Table S1. A complete list of 528 UP CIFH contigs with RA<sub>IF/CF</sub> >5, RA<sub>IH/CH</sub> >8, or ARN<sub>IF or IH</sub> >10**

CIFH contig #	Original read #					RA or ARN		BLAST results
	CF	CH	IF	IH	Total	IF/CF	IH/CH	
00081	1	63	12	70	146	6.1	1.3	No hits found
00109	0	13	115	30	158	58.6	2.7	gi 110751180 ref XP_623564.2  multidrug resistance protein homolog (P-glycoprotein 49) [A. mellifera]
00131	11	41	137	61	250	6.4	1.8	gi 198430641 ref XP_002123478.1  ~ hemicentin 1, Ig domains [Ciona intestinalis]
00167	0	0	83	8	91	42.3	9.5	gi 2500792 sp Q25479.1 NKCL_MANSE bumetanide-sensitive cotransporter, Na-K-CL symporter
00196	1	54	11	37	103	5.6	0.8	gi 110766311 ref XP_397365.3  ~ SUMO1/sentrin specific protease 1 [A. mellifera]
00221	5	21	2	147	175	0.2	8.3	gi 479443 pir S33901 reverse transcriptase, silkworm transposon Pao
00269	2	41	36	58	137	9.2	1.7	gi 189238558 ref XP_966599.2  B-cell lymphoma 3-encoded protein (Bcl-3) isoform 1 [T. castaneum]
00315	1	85	22	85	193	11.2	1.2	gi 91094211 ref XP_972733.1  ~ CG7029-PC [Tribolium castaneum]
00327	2	9	154	31	196	39.3	4.1	No hits found
00461	1	48	14	108	171	7.1	2.7	gi 47217104 emb CAG02605.1  integrin β6 precursor [Tetraodon nigroviridis]
00491	1	43	11	22	77	5.6	0.6	No hits found
00537	1	32	10	32	75	5.1	1.2	gi 270009406 gb EFA05854.1  TcasGA2_TC008649 Tyr protein kinase [Tribolium castaneum]
00575	3	0	259	5	267	44.0	5.9	gi 154240658 dbj BAF74637.1  peptidoglycan recognition protein-D [Samia cynthia ricini]
00636	3	34	43	46	126	7.3	1.6	gi 51511835 gb AAU05129.1  hexokinase [Aedes aegypti]
00661	1	48	26	51	126	13.3	1.3	gi 189234794 ref XP_001807213.1  ~ Est1p-like protein B [Tribolium castaneum]
00671	1	12	10	46	69	5.1	4.6	gi 189235637 ref XP_967498.2  ral guanine nucleotide exchange factor [Tribolium castaneum]
00679	1	42	18	51	112	9.2	1.4	gi 156541984 ref XP_001599563.1  tumor suppressor protein [Nasonia vitripennis]
00737	2	4	131	2	139	33.4	0.6	gi 198466442 ref XP_002135189.1  GA23919 [Drosophila pseudoobscura]
00745	1	39	11	57	108	5.6	1.7	gi 124513436 ref XP_001350074.1  hypothetical protein [Plasmodium falciparum]
00787	3	54	33	66	156	5.6	1.5	No hits found
00830	1	34	10	44	89	5.1	1.5	No hits found
00876	1	30	27	39	97	13.8	1.5	gi 157130104 ref XP_001655562.1  acyl-CoA oxidase [Aedes aegypti]
00886	0	31	20	30	81	10.2	1.1	gi 189234051 ref XP_001809969.1  similar to Na-K-Cl cotransporter [Tribolium castaneum]
00903	1	32	10	24	67	5.1	0.9	No hits found
00907	1	31	11	17	60	5.6	0.7	gi 242020758 ref XP_002430818.1  protein BAT5 [Pediculus humanus corporis]
00912	0	10	22	73	105	11.2	8.7	No hits found
00915	0	21	21	26	68	10.7	1.5	gi 91084647 ref XP_966816.1  ~ AGAP002414-PA [Tribolium castaneum]
00940	0	0	209	7	216	106.6	8.3	gi 1352212 sp P48861.1 DDC_MANSE DOPA decarboxylase DDC
01020	42	4	63	27	136	0.8	8.0	gi 91082721 ref XP_972476.1  ~ eiger CG12919-PA, JNK [Tribolium castaneum]
01044	9	70	163	105	347	9.2	1.8	gi 289629214 ref NP_001166191.1  cactus [Bombyx mori]
01099	1	17	33	56	107	16.8	3.9	gi 156548358 ref XP_001603694.1  ~ dipeptidyl-peptidase [Nasonia vitripennis]
01104	3	11	99	21	134	16.8	2.3	gi 156548021 ref XP_001605638.1  ~ CG10960-PA [Nasonia vitripennis]
01134	1	26	17	24	68	8.7	1.1	No hits found
01154	1	33	12	22	68	6.1	0.8	No hits found
01167	1	17	12	22	52	6.1	1.5	gi 193629622 ref XP_001949450.1  ~ gag-pol protein [Acyrtosiphon pisum]
01250	1	18	10	22	51	5.1	1.5	gi 158286675 ref XP_308860.3  AGAP006894-PA [Anopheles gambiae]
01313	2	52	33	35	122	8.4	0.8	gi 24200917 ref XP_002425367.1  Ser-Thr protein kinase, plant-type [P. humanus corporis]
01323	2	12	49	18	81	12.5	1.8	gi 162462783 ref NP_001104822.1  carboxylesterase-6 [Bombyx mori]
01326	1	9	19	70	99	9.7	9.2	gi 52782739 sp Q8ISB6.1 BGBP2_MANSE β-1,3-glucan recognition protein 2
01390	1	31	14	19	65	7.1	0.7	gi 46403173 gb AA592609.1  vrille transcription factor [Antheraea pernyi]
01407	1	8	24	13	46	12.2	1.9	gi 114565510 ref XP_001150205.1  Asp-tRNA synthetase 2 (mitochondrial) isoform 6 [Pan troglodytes]
01426	0	4	22	11	37	11.2	3.3	gi 242024322 ref XP_002432577.1  peptidyl-Gly α-amidating monoxygenase [P. humanus corporis]
01475	1	20	10	26	57	5.1	1.5	gi 157125003 ref XP_001654205.1  AAEL001898 [Aedes aegypti]
01477	2	1	37	5	45	9.4	5.9	gi 156555710 ref XP_001603237.1  ~ RE03018p, partial [Nasonia vitripennis]
01504	1	44	15	31	91	7.6	0.8	gi 91080069 ref XP_967249.1  HLA-B associated transcript 3 [Tribolium castaneum]
01524	0	6	0	48	54	0.0	9.5	No hits found
01551	16	1	56	12	85	1.8	14.2	gi 91079628 ref XP_967731.1  ~ AGAP002355-PA [Tribolium castaneum]
01622	1	35	23	19	78	11.7	0.6	No hits found
01650	1	16	12	14	43	6.1	1.0	gi 110757972 ref XP_001120878.1  ~ delangin isoform A [Apis mellifera]
01659	1	11	10	26	48	5.1	2.8	gi 91079704 ref XP_968959.1  eukaryotic peptide chain release factor GTP-binding subunit [T. castaneum]
01667	0	7	98	33	138	50.0	5.6	gi 26006435 gb AAL76085.1  proPO-activating proteinase-2 [Manduca sexta]
01681	1	62	10	67	140	5.1	1.3	gi 189239491 ref XP_975498.2  ~ MTA1-like CG2244-PB [Tribolium castaneum]
01714	3	2	90	1	96	15.3	0.6	No hits found
01744	3	21	44	49	117	7.5	2.8	gi 94470463 gb ABF20542.1  lipophorin receptor [Galleria mellonella]
01745	9	39	223	114	385	12.6	3.5	gi 3859938 gb AAC72919.1  reverse transcriptase [Lymantria dispar]
01765	0	21	220	7	248	112.2	0.4	gi 260908056 gb ACX53826.1  neutral lipase [Heliothis virescens]
01810	0	26	45	66	137	22.9	3.0	gi 60299972 gb AAX18637.1  proPO-activating proteinase-3 [Manduca sexta]
01819	0	0	43	4	47	21.9	4.7	gi 156555781 ref XP_001603060.1  triacylglycerol lipase, pancreatic [Nasonia vitripennis]
01820	0	0	51	0	51	26.0	0.0	gi 193591841 ref XP_001946694.1  ~ AGAP011571-PA [Acyrtosiphon pisum]
01888	2	5	36	15	58	9.2	3.6	gi 134254438 ref NP_001077079.1  cytochrome P450 9a20 [Bombyx mori]
01895	0	0	110	3	113	56.1	3.6	gi 162424467 gb ABX89951.1  Asp 1-decarboxylase [Tribolium castaneum]
01927	2	42	28	36	108	7.1	1.0	gi 91077580 ref XP_972986.1  ~ AGAP002461-PA [Tribolium castaneum]
01941	2	91	32	68	193	8.2	0.9	No hits found
01970	1	16	12	29	58	6.1	2.2	gi 157118595 ref XP_001659169.1  guanine nucleotide exchange factor [Aedes aegypti]
01976	2	32	20	25	79	5.1	0.9	gi 116326772 ref YP_803309.1  hypothetical protein TnAV2c gp086 [Trichoplusia ni ascovirus 2c]
01983	1	47	10	102	160	5.1	2.6	No hits found
02003	1	18	13	12	44	6.6	0.8	gi 221105965 ref XP_002169026.1  ~ predicted protein [Hydra magnipapillata]
02023	1	0	33	7	41	16.8	8.3	gi 148611442 gb ABQ95973.1  tyrosine hydroxylase isoform A [Manduca sexta]
02067	1	0	280	82	363	142.8	97.4	gi 110649240 emb CAL25129.1  gloverin [Manduca sexta]
02114	11	1	130	4	146	6.0	4.7	gi 260908058 gb ACX53827.1  neutral lipase [Heliothis virescens]
02145	0	15	20	95	130	10.2	7.5	gi 157134051 ref XP_001663123.1  transferrin [Aedes aegypti]
02147	1	0	47	0	48	24.0	0.0	gi 193662234 ref XP_001948711.1  alanine aminotransferase [Acyrtosiphon pisum]
02267	12	9	156	308	485	6.6	40.6	gi 110826028 gb ABH01082.1  esterase [Sesamia nonagrioides]
02280	2	1	26	3	32	6.6	3.6	No hits found
02314	5	11	53	26	95	5.4	2.8	gi 91078456 ref XP_976128.1  hypothetical protein [Tribolium castaneum]
02332	2	33	23	35	93	5.9	1.3	gi 157412314 ref NP_001098698.1  adenosine deaminase-related growth factor [Bombyx mori]

02361	7	4	70	1	82	5.1	0.3	gi 56418425 gb AAV91020.1  hemolymph proteinase 22 [Manduca sexta]
02370	1	19	12	5	37	6.1	0.3	No hits found
02382	0	2	109	69	180	55.6	41.0	gi 4090964 gb AAD09279.1  immune-related Hdd1 [Hyphantria cunea]
02467	1	37	45	46	129	22.9	1.5	No hits found
02544	1	51	51	42	145	26.0	1.0	gi 112983138 ref NP_001037040.1  phenol UDP-glucosyltransferase [Bombyx mori]
02565	14	8	89	230	341	3.2	34.1	gi 110826028 gb ABH01082.1  esterase [Sesamia nonagrioides]
02627	1	26	12	30	69	6.1	1.4	gi 158287951 ref XP_309827.4  AGAP010875-PA [Anopheles gambiae]
02645	10	1	16	7	34	0.8	8.3	gi 91088493 ref XP_975965.1  CG3625-PB isoform 2 [Tribolium castaneum]
02647	1	32	12	12	57	6.1	0.4	gi 170052222 ref XP_001862123.1  conserved hypothetical protein [Culex quinquefasciatus]
02657	1	17	10	2	30	5.1	0.1	gi 270016687 gb EFA13133.1  hypothetical TcasGA2_TC010317 [Tribolium castaneum]
02669	2	0	158	0	160	40.3	0.0	No hits found
02685	1	22	11	25	59	5.6	1.3	gi 157119616 ref XP_001659451.1  hypothetical protein AaeL_AAEL008718 [Aedes aegypti]
02693	21	7	310	19	357	7.5	3.2	gi 27733415 gb AAO21505.1 AF413064_1 serpin 3 [Manduca sexta]
02697	2	4	25	13	44	6.4	3.9	gi 195447170 ref XP_002071095.1  GK25615 [Drosophila willistoni]
02753	0	0	19	10	29	9.7	11.9	gi 91082921 ref XP_972710.1  ~ annulin [Tribolium castaneum]
02798	1	23	11	37	72	5.6	1.9	No hits found
02813	108	9	313	72	502	1.5	9.5	gi 242351233 gb ACS92763.1  serine proteinase-like protein 1b [Manduca sexta]
02822	2	1	27	12	42	6.9	14.2	No hits found
02823	1	4	15	10	30	7.6	3.0	gi 189241478 ref XP_001807906.1  ~ munc13-4 [Tribolium castaneum]
02859	1	3	14	3	21	7.1	1.2	gi 91084931 ref XP_970864.1  ~ AGAP007103-PA [Tribolium castaneum]
02926	0	1	0	17	18	0.0	20.2	No hits found
02971	1	12	10	10	33	5.1	1.0	No hits found
02985	3	0	158	0	161	26.9	0.0	gi 56418466 gb AAV91027.1  serine proteinase-like protein 4 [Manduca sexta]
03018	0	54	22	79	155	11.2	1.7	gi 56418395 gb AAV91005.1  hemolymph proteinase 7 [Manduca sexta]
03020	1	11	11	14	37	5.6	1.5	gi 260789631 ref XP_002589849.1  hypothetical BRAFLDRAFT_61483 [Branchiostoma floridae]
03130	0	0	30	0	30	15.3	0.0	No hits found
03142	1	7	420	121	549	214.2	20.5	gi 33860163 sp P82176.2 IMPI_GALME inducible metalloproteinase inhibitor IMPI $\alpha$ precursor
03159	1	11	12	19	43	6.1	2.1	gi 144052390 ref NP_001040473.1  insulin-related peptide binding protein [Bombyx mori]
03185	106	0	234	10	350	1.1	11.9	gi 157117489 ref XP_001658792.1  3-hydroxyacyl-CoA dehydrogenase [Aedes aegypti]
03296	1	64	13	70	148	6.6	1.3	gi 144052038 ref NP_001040449.1  actin-related protein 2/3 complex subunit 4 [Bombyx mori]
03381	1	32	34	44	111	17.3	1.6	No hits found
03434	1	0	387	0	388	197.3	0.0	gi 189234566 ref XP_001815977.1  Kaz1-ORFB CG1220-PE [Tribolium castaneum]
03442	1	12	1468	40	1521	748.5	4.0	gi 511297 gb AAC46916.1  hemolin [Manduca sexta]
03445	1	44	17	32	94	8.7	0.9	gi 94470463 gb ABF20542.1  lipophorin receptor [Galleria mellonella]
03473	7	1	14	12	34	1.0	14.2	gi 183979239 dbj BAG30781.1  similar to CG10638-PA [Papilio xuthus]
03498	0	0	20	0	20	10.2	0.0	gi 270000764 gb EEZ97211.1  hypothetical protein TcasGA2_TC004402 [Tribolium castaneum]
03580	1	13	14	16	44	7.1	1.5	gi 225714652 gb ACO13172.1  RNA exonuclease 4 [Lepeophtheirus salmonis]
03589	1	6	10	7	24	5.1	1.4	gi 170050891 ref XP_001861516.1  solute carrier family 39 [Culex quinquefasciatus]
03674	1	0	5	21	27	2.5	24.9	gi 110347837 gb ABG72720.1  protease inhibitor-like protein [Antheraea mylitta]
03728	3	1	6	12	22	1.0	14.2	gi 156541292 ref XP_001601487.1  glycogen debranching enzyme [Nasonia vitripennis]
03746	0	7	55	389	451	28.0	66.0	gi 148298709 ref NP_001091749.1  possible antimicrobial peptide [Bombyx mori]
03764	1	17	13	15	46	6.6	1.0	No hits found
03778	0	11	192	28	231	97.9	3.0	gi 74813957 sp Q86RS3.1 DFP_MANSE immune-related Hdd1 precursor
03810	1	18	15	18	52	7.6	1.2	gi 114051682 ref NP_001040173.1  calcium-binding protein p22 [Bombyx mori]
03813	4	25	42	25	96	5.4	1.2	gi 157113145 ref XP_001651912.1  deoxyribonuclease I [Aedes aegypti]
03837	1	50	10	27	88	5.1	0.6	gi 110750637 ref XP_001122480.1  ~ testis specific gene A2 [Apis mellifera]
03989	0	1	8	24	33	4.1	28.5	gi 56418399 gb AAV91007.1  hemolymph proteinase 9 [Manduca sexta]
04085	0	34	3	268	305	1.5	9.4	gi 206725499 ref NP_001128673.1  cathepsin L like protein [Bombyx mori]
04102	2	5	30	11	48	7.6	2.6	gi 91084741 ref XP_971031.1  ~ apolipoprotein D [Tribolium castaneum]
04175	0	7	40	45	92	20.4	7.6	gi 114052803 ref NP_001040277.1  salivary Cys-rich peptide [Bombyx mori]
04187	1	8	13	19	41	6.6	2.8	gi 158288876 ref XP_565967.2  AGAP000402-PA [Anopheles gambiae]
04202	2	2	0	18	22	0.0	10.7	gi 189235866 ref XP_969616.2  splicing factor ATP-dependent RNA helicase PRP16 [T. castaneum]
04275	1	1	4	7	13	2.0	8.3	No hits found
04308	0	1	0	15	16	0.0	17.8	gi 115623975 ref XP_783120.2  endonuclease-reverse transcriptase [Strongylocentrotus purpuratus]
04378	4	0	62	1	67	7.9	1.2	No hits found
04432	24	97	291	206	618	6.2	2.5	gi 195048783 ref XP_001992595.1  GH24838 [Drosophila grimshawi]
04465	0	3	2	27	32	1.0	10.7	gi 168823411 ref NP_001108339.1  carboxylesterase CarE-7 [Bombyx mori]
04491	0	1	2	13	16	1.0	15.4	No hits found
04517	2	2	2	33	39	0.5	19.6	No hits found
04518	1	11	57	2	71	29.1	0.2	No hits found
04581	1	9	197	77	284	100.4	10.2	gi 13359096 dbj BAB33297.1  esterase-like protein (ESR-LP) [Bombyx mori]
04661	1	25	10	55	91	5.1	2.6	gi 91082167 ref XP_970790.1  Arp2/3 complex subunit ARPC5 [Tribolium castaneum]
04690	1	1	2	12	16	1.0	14.2	No hits found
04720	26	1	1025	0	1052	20.1	0.0	No hits found
04736	2	17	22	27	68	5.6	1.9	gi 91083777 ref XP_972333.1  tetratricopeptide repeat protein [Tribolium castaneum]
04746	0	0	7	608	615	3.6	721.9	gi 195486646 ref XP_002091593.1  GE13745 [Drosophila yakuba]
04775	1	0	89	0	90	45.4	0.0	gi 237869126 gb AAF91316.3 AF242202_1 immunectin-2 [Manduca sexta]
04802	2	42	25	66	135	6.4	1.9	gi 157412326 ref NP_001098704.1  Relish2 [Bombyx mori]
04808	0	0	426	2	428	217.2	2.4	gi 237861314 gb AAV41237.2  immunectin-4 [Manduca sexta]
04830	12	0	124	0	136	5.3	0.0	gi 169646838 ref NP_001112375.1  heat shock protein 25.4 [Bombyx mori]
04862	3	15	39	21	78	6.6	1.7	gi 91089817 ref XP_969063.1  ~ AGAP011081-PA [Tribolium castaneum]
04887	10	0	109	0	119	5.6	0.0	gi 169646838 ref NP_001112375.1  heat shock protein 25.4 [Bombyx mori]
04903	0	0	279	6	285	142.3	7.1	gi 187281722 ref NP_001119732.1  lebecin 3 precursor [Bombyx mori]
04906	0	2	7	14	23	3.6	8.3	gi 91081707 ref XP_971145.1  ~ AGAP004271-PA [Tribolium castaneum]
04987	0	2	1	15	18	0.5	8.9	gi 91094617 ref XP_968941.1  conserved hypothetical protein [Tribolium castaneum]
05013	1	43	10	30	84	5.1	0.8	gi 158292843 ref XP_001688534.1  AGAP005245-PK [Anopheles gambiae]
05033	0	1	8	8	17	4.1	9.5	gi 260781593 ref XP_002585890.1  hypothetical BRAFLDRAFT_146067 [Branchiostoma floridae]
05084	0	1	1	9	11	0.5	10.7	No hits found
05128	1	0	3	15	19	1.5	17.8	gi 194760436 ref XP_001962447.1  GF14439 [Drosophila ananassae]
05186	0	0	8	13	21	4.1	15.4	gi 56418413 gb AAV91014.1  hemolymph proteinase 17 [Manduca sexta]
05197	0	0	20	1	21	10.2	1.2	gi 115392217 gb ABI96910.1  brasiliensin precursor, thrombin inhibitor [Triatoma brasiliensis]

05227	1	3	8	23	35	4.1	9.1	gii190702438 gb ACE75327.1  conserved hypothetical protein [Glyptapanteles indiensis]
05263	0	1	0	20	21	0.0	23.7	gii91082057 ref XP_971798.1  ~AGAP004266-PA [Tribolium castaneum]
05306	1	8	11	10	30	5.6	1.5	gii195375116 ref XP_002046349.1  GJ12849 [Drosophila virilis]
05371	0	1	3	11	15	1.5	13.1	gii195335402 ref XP_002034354.1  GM21825 [Drosophila sechellia]
05439	0	6	232	22	260	118.3	4.4	gii125624990 ref YP_001033473.1  hypothetical limg_2223 [Lactococcus lactis]
05498	1	68	10	59	138	5.1	1.0	gii112983834 ref NP_001037293.1  lark [Bombyx mori]
05532	0	0	110	0	110	56.1	0.0	No hits found
05577	4	157	22	1895	2078	2.8	14.3	gii254746342 emb CAX16636.1  putative C1A Cys protease precursor [Manduca sexta]
05606	1	0	19	4	24	9.7	4.7	gii4090968 gb AAD09281.1  immune-related Hdd13 [Hyphantria cunea]
05614	1	2	14	4	21	7.1	2.4	gii91082437 ref XP_970911.1  ~tribbles homolog 2 [Tribolium castaneum]
05615	1	18	11	17	47	5.6	1.1	gii66560996 ref XP_624918.1  ~CG9099-PA [Apis mellifera]
05664	1	29	18	31	79	9.2	1.3	gii94469280 gb ABF18489.1  hypothetical conserved protein [Aedes aegypti]
05704	0	34	219	65	318	111.7	2.3	gii45553223 ref NP_996139.1  CG33290 [Drosophila melanogaster]
05717	37	2	522	6	567	7.2	3.6	gii169646838 ref NP_001112375.1  heat shock protein 25.4 [Bombyx mori]
05753	2	0	6	15	23	1.5	17.8	No hits found
05831	3	8	97	25	133	16.5	3.7	gii45594232 gb AAS68507.1  serpin-5A [Manduca sexta]
05836	2	1	0	7	10	0.0	8.3	gii189235110 ref XP_971078.2  receptor tyrosinephosphatase type r2a [Tribolium castaneum]
05909	0	1	0	11	12	0.0	13.1	gii195048466 ref XP_001992532.1  GH24802 [Drosophila grimshawi]
05931	1	0	1	17	19	0.5	20.2	gii66549567 ref XP_623543.1  ~CG6398-PA [Apis mellifera]
05936	1	13	16	13	43	8.2	1.2	No hits found
06044	1	1	0	13	15	0.0	15.4	gii110756628 ref XP_396622.3  ~CG15831-PA.3 [Apis mellifera]
06049	1	43	11	108	163	5.6	3.0	gii112983456 ref NP_001036888.1  $\beta$ -tubulin [Bombyx mori]
06092	0	2	1	14	17	0.5	8.3	gii158297301 ref XP_317561.4  AGAP007920-PA [Anopheles gambiae]
06149	21	22	686	32	761	16.7	1.7	gii27733421 gb AAO21508.1 AF413067_1 serine protease-like protein [Manduca sexta]
06195	0	1	2	9	12	1.0	10.7	No hits found
06196	0	1	2	9	12	1.0	10.7	gii222160397 gb ACM47363.1  SID-1-related protein 1 [Spodoptera exigua]
06215	29	1	108	8	146	1.9	9.5	gii112983872 ref NP_001036857.1  serpin-like protein (SEP-LP) or serpin-12 [Bombyx mori]
06260	1	15	10	20	46	5.1	1.6	gii114050773 ref NP_001040155.1  short-chain dehydrogenase/reductase-like [Bombyx mori]
06304	1	0	11	1	13	5.6	1.2	gii170038257 ref XP_001846968.1  dipeptidyl peptidase 4, apoptosis, immunity [Culex quinquefasciatus]
06399	0	1	3	7	11	1.5	8.3	No hits found
06512	0	1	2	7	10	1.0	8.3	No hits found
06554	0	1	1	9	11	0.5	10.7	gii110762260 ref XP_001122479.1  partitioning-defective 3-like protein [Apis mellifera]
06581	0	0	13	10	23	6.6	11.9	gii4090970 gb AAD09282.1  immune-related Hdd23 [Hyphantria cunea]
06604	9	2	113	9	133	6.4	5.3	No hits found
06630	2	40	44	77	163	11.2	2.3	gii55139125 gb AAV41236.1  immunectin-3 [Manduca sexta]
06639	5	1	1	10	17	0.1	11.9	No hits found
06782	0	0	102	17	119	52.0	20.2	gii67906420 gb AAV82587.1  attacin-1 [Manduca sexta]
06814	1	24	10	34	69	5.1	1.7	gii156543959 ref XP_001603239.1  hypothetical protein [Nasonia vitripennis]
06833	0	1	0	10	11	0.0	11.9	No hits found
06836	1	0	10	0	11	5.1	0.0	No hits found
06858	0	1	2	8	11	1.0	9.5	gii110766283 ref XP_395375.3  ~Suv4-20 CG13363-PA isoforms 1 [Apis mellifera]
06868	0	1	1	11	13	0.5	13.1	gii193713771 ref XP_001946690.1  ankyrin repeat domain 54 [Acyrtosiphon pisum]
06870	0	1	3	7	11	1.5	8.3	No hits found
06873	6	0	59	0	65	5.0	0.0	No hits found
06893	0	1	1	20	22	0.5	23.7	gii126635756 gb ABO21763.1  Toll receptor [Manduca sexta]
06945	0	0	0	9	9	0.0	10.7	No hits found
06987	0	0	74	0	74	37.7	0.0	No hits found
07026	0	1	2	7	10	1.0	8.3	No hits found
07059	0	1	0	11	12	0.0	13.1	No hits found
07116	1	4	902	3	910	459.9	0.9	gii171262319 gb ACB45566.1  lebecin-like protein [Antheraea pernyi]
07134	1	1	1	12	15	0.5	14.2	gii190341030 ref NP_001121786.1  carboxylesterase CarE-14 [Bombyx mori]
07157	2	1	0	7	10	0.0	8.3	gii158284747 ref XP_307835.4  AGAP009424-PA [Anopheles gambiae]
07163	0	0	4	11	15	2.0	13.1	gii190341030 ref NP_001121786.1  carboxylesterase CarE-14 [Bombyx mori]
07176	0	0	1	13	14	0.5	15.4	gii115620372 ref XP_001200099.1  endonuclease-reverse transcriptase [Strongylocentrotus purpuratus]
07196	0	1	0	8	9	0.0	9.5	No hits found
07203	2	3	312	22	339	79.5	8.7	gii67906420 gb AAV82587.1  attacin-1 [Manduca sexta]
07293	1	0	11	0	12	5.6	0.0	gii21552589 gb AAM54724.1  cytochrome P450 monooxygenase CYP321A1 [Helicoverpa zea]
07305	1	24	13	11	49	6.6	0.5	gii91085959 ref XP_971351.1  lethal (1) G0004 CG11738-PA [Tribolium castaneum]
07395	2	4	26	2	34	6.6	0.6	No hits found
07417	2	0	1	11	14	0.3	13.1	gii195154531 ref XP_002018175.1  GL16908 [Drosophila persimilis]
07494	0	1	1	10	12	0.5	11.9	No hits found
07536	7	0	383	2	392	27.9	2.4	No hits found
07553	0	4	18	33	55	9.2	9.8	No hits found
07561	0	1	0	15	16	0.0	17.8	No hits found
07611	1	6	10	15	32	5.1	3.0	gii157105718 ref XP_001648995.1  hypothetical protein AaeL_AAEL004355 [Aedes aegypti]
07635	0	1	0	8	9	0.0	9.5	No hits found
07639	651	0	1237	14	1902	1.0	16.6	gii134436 sp P14754.1 SERA_MANSE serpin-1
07722	1	0	10	0	11	5.1	0.0	gii156546046 ref XP_001600313.1  ~GH22922p [Nasonia vitripennis]
07809	0	1	0	15	16	0.0	17.8	No hits found
07883	0	0	3	792	795	1.5	940.4	gii157128533 ref XP_001661472.1  hypothetical protein AaeL_AAEL011180 [Aedes aegypti]
07895	0	1	0	9	10	0.0	10.7	gii91089189 ref XP_974407.1  $\gamma$ -Glu transpeptidase [Tribolium castaneum]
07958	2	1	6	8	17	1.5	9.5	gii156545127 ref XP_001602358.1  conserved hypothetical protein [Nasonia vitripennis]
07975	121	1	1930	0	2052	8.1	0.0	gii159526 gb AAA29320.1  Met-rich storage protein 1 [Manduca sexta]
08035	1	16	10	82	109	5.1	6.1	No hits found
08067	1	0	18	0	19	9.2	0.0	gii197209932 ref NP_001127730.1  uridine diphosphate glucosyltransferase [Bombyx mori]
08081	1	0	27	0	28	13.8	0.0	No hits found
08105	0	1	0	7	8	0.0	8.3	gii157110092 ref XP_001650948.1  hairy protein [Aedes aegypti]
08141	84	0	845	0	929	5.1	0.0	gii159526 gb AAA29320.1  Met-rich storage protein 1 [Manduca sexta]
08231	0	1	0	34	35	0.0	40.4	gii56418417 gb AAV91016.1  hemolymph proteinase 18 [Manduca sexta]
08247	27	2	122	18	169	2.3	10.7	gii208972535 gb ACI32828.1  $\beta$ -1,3-glucan recognition protein 3 [Helicoverpa armigera]
08286	0	0	139	23	162	70.9	27.3	gii56462340 gb AAV91453.1  protease inhibitor 6 [Lonomia obliqua]

08332	0	0	1	15	16	0.5	17.8	gij170062231 ref XP_001866577.1	γ-Glu transpeptidase [Culex quinquefasciatus]
08371	0	0	79	0	79	40.3	0.0	No hits found	
08421	4	2	28	99	133	3.6	58.8	gij7327646 gb AAB31190.2	lysozyme [Manduca sexta]
08467	0	0	113	0	113	57.6	0.0	gij112983866 ref NP_001036858.1	Bacteriophage T7 lysozyme-like protein 1 [Bombyx mori]
08469	2	1	0	8	11	0.0	9.5	No hits found	
08484	1	1	0	8	10	0.0	9.5	No hits found	
08496	1	10	13	4	28	6.6	0.5	No hits found	
08561	0	0	3	353	356	1.5	419.1	No hits found	
08586	2	118	27	72	219	6.9	0.7	gij2627133 dbj BAA23488.1	polyubiquitin [Cricetulus griseus]
08596	0	1	0	7	8	0.0	8.3	gij147905832 ref NP_001086660.1	MGC80032 protein [Xenopus laevis]
08608	1	3	11	3	18	5.6	1.2	gij91087269 ref XP_975538.1	acyl-CoA synthetase family member 3 [Tribolium castaneum]
08679	2	1	1	8	12	0.3	9.5	No hits found	
08696	1	1	8	14	24	4.1	16.6	gij56554907 gb AAV98008.1	hypothetical protein ORF3004 [Cotesia plutellae polydnavirus]
08751	1	0	72	0	73	36.7	0.0	No hits found	
08846	1	0	27	0	28	13.8	0.0	No hits found	
08854	220	3	3742	0	3965	8.7	0.0	gij5869985 emb CAB55603.1	moderately Met-rich storage protein[Spodoptera litura]
08902	0	0	164	14	178	83.6	16.6	gij67906420 gb AAV82587.1	attacin-1 [Manduca sexta]
09035	0	1	2	723	726	1.0	858.5	No hits found	
09052	0	18	23	8	49	11.7	0.5	gij229002332 dbj BAH57948.1	hypothetical protein [Bombyx mori]
09055	1	1	0	7	9	0.0	8.3	No hits found	
09073	1	30	15	31	77	7.6	1.2	No hits found	
09097	0	1	0	11	12	0.0	13.1	gij91083067 ref XP_967512.1	~ α(1,3) fucosyltransferase [Tribolium castaneum]
09112	0	1	0	8	9	0.0	9.5	gij156547305 ref XP_001601599.1	~ ENSANGP00000016048 [Nasonia vitripennis]
09113	0	0	0	13	13	0.0	15.4	gij193636468 ref XP_001945548.1	CRAL/TRIO domain-containing protein [Acyrthosiphon pisum]
09137	0	0	1	12	13	0.5	14.2	No hits found	
09170	0	0	55	0	55	28.0	0.0	gij158299588 ref XP_319685.4	AGAP008931-PA [Anopheles gambiae]
09204	2	1	0	8	11	0.0	9.5	gij195026159 ref XP_001986195.1	GH20660 [Drosophila grimshawi]
09221	1	1	0	8	10	0.0	9.5	gij115673122 ref XP_792128.2	hypothetical protein [Strongylocentrotus purpuratus]
09242	1	1	0	13	15	0.0	15.4	No hits found	
09278	0	1	1	7	9	0.5	8.3	No hits found	
09303	0	2	2	34	38	1.0	20.2	gij195431445 ref XP_002063752.1	GK15838 [Drosophila willistonii]
09484	1	0	134	56	191	68.3	66.5	gij29469961 gb AAO74637.1	antimicrobial peptide moricin [Manduca sexta]
09513	0	1	1	8	10	0.5	9.5	No hits found	
09529	0	1	3	7	11	1.5	8.3	No hits found	
09545	1	8	15	3	27	7.6	0.4	No hits found	
09549	0	1	0	9	10	0.0	10.7	gij195473285 ref XP_002088926.1	GE18840 [Drosophila yakuba]
09554	2	0	24	0	26	6.1	0.0	No hits found	
09608	1	7	25	20	53	12.7	3.4	gij91078456 ref XP_976128.1	hypothetical protein [Tribolium castaneum]
09721	1	5	11	2	19	5.6	0.5	gij66517077 ref XP_393677.2	downstream of son gene/protein homolog [Apis mellifera]
09729	0	1	2	7	10	1.0	8.3	gij115894520 ref XP_795273.2	~ GPI7 [Strongylocentrotus purpuratus]
09768	0	1	0	7	8	0.0	8.3	gij153791703 ref NP_001093297.1	3-hydroxy-3-methylglutaryl-CoA synthase [Bombyx mori]
09830	1	7	18	0	26	9.2	0.0	No hits found	
09876	0	1	0	11	12	0.0	13.1	gij110777805 ref XP_001122792.1	~ CG11438-PA, partial [Apis mellifera]
09887	2	0	26	0	28	6.6	0.0	gij70905472 gb AAZ14793.1	33.6 kDa small heat shock protein [Choristoneura fumiferana]
10026	0	1	0	7	8	0.0	8.3	No hits found	
10071	11	1	1117	0	1129	51.8	0.0	gij228382 prf 1803340A	Met-rich storage protein SP1A
10234	0	1	249	7	257	127.0	8.3	gij169264911 dbj BAG12297.1	gallerimycin [Samia cynthia ricini]
10297	18	8	311	125	462	8.8	18.6	No hits found	
10409	1	1	0	7	9	0.0	8.3	gij110758847 ref XP_001121639.1	ATP-dependent RNA helicase kurz [Apis mellifera]
10485	4	0	2	11	17	0.3	13.1	No hits found	
10649	1	80	12	63	156	6.1	0.9	No hits found	
10705	1	1	3	8	13	1.5	9.5	gij91094369 ref XP_970631.1	~ CG14435-PA [Tribolium castaneum]
10722	9	3	102	3	117	5.8	1.2	gij110347833 gb ABG72718.1	protease inhibitor-like protein [Antheraea mylitta]
10753	1	0	6	12	19	3.1	14.2	No hits found	
10763	0	2	0	20	22	0.0	11.9	No hits found	
10772	1	6	14	5	26	7.1	1.0	No hits found	
10791	1	0	1081	1	1083	551.2	1.2	gij4262357 gb AAD14591.1	scolexin A [Manduca sexta]
10792	0	0	333	0	333	169.8	0.0	gij4262357 gb AAD14591.1	scolexin A [Manduca sexta]
10822	0	1	0	14	15	0.0	16.6	No hits found	
10853	0	0	113	1	114	57.6	1.2	gij171262319 gb ACB45566.1	lebobcin-like protein [Antheraea pernyi]
10913	0	1	0	9	10	0.0	10.7	gij91087219 ref XP_975481.1	~ pinn [Tribolium castaneum]
10927	0	1	1	9	11	0.5	10.7	gij195394852 ref XP_002056053.1	GJ10726 [Drosophila virilis]
10935	1	0	15	0	16	7.6	0.0	gij56462320 gb AAV91443.1	putative secreted peptide 30 [Lonomia obliqua]
10960	0	1	0	7	8	0.0	8.3	gij189235767 ref XP_969767.2	conserved hypothetical protein [Tribolium castaneum]
11001	0	1	0	7	8	0.0	8.3	No hits found	
11027	59	0	694	0	753	6.0	0.0	gij136206 sp P22297.1	TRF_MANSE transferrin precursor
11040	0	4	51	249	304	26.0	73.9	gij29469969 gb AAO74640.1	antimicrobial protein attacin 2 [Manduca sexta]
11082	0	14	26	123	163	13.3	10.4	No hits found	
11164	1	1	0	8	10	0.0	9.5	gij66525345 ref XP_396922.2	~ CG7460-PB isoform 1 [Apis mellifera]
11195	0	0	2	16	18	1.0	19.0	gij156543854 ref XP_001606812.1	~ CG33715-PB [Nasonia vitripennis]
11218	5	2	51	7	65	5.2	4.2	No hits found	
11230	0	1	13	9	23	6.6	10.7	gij241659425 emb CAZ65619.1	cytochrome P450 [Cnaphalocrocis medinalis]
11236	2	2	45	8	57	11.5	4.7	No hits found	
11311	0	1	3	9	13	1.5	10.7	gij189237512 ref XP_972880.2	protein phosphatase type 2c [Tribolium castaneum]
11329	0	1	1	7	9	0.5	8.3	No hits found	
11356	0	1	4	7	12	2.0	8.3	gij156551808 ref XP_001603899.1	arf6 guanine nucleotideexchange factor [Nasonia vitripennis]
11406	0	0	24	0	24	12.2	0.0	No hits found	
11436	2	21	30	36	89	7.6	2.0	gij156308441 ref XP_001617664.1	hypothetical NEMVEDRAFT_v1g69851[N. vectensis]
11458	0	0	55	0	55	28.0	0.0	gij148298818 ref NP_001091784.1	multi-binding protein [Bombyx mori]
11463	2	3	90	14	109	22.9	5.5	gij24416622 dbj BAC22502.1	putative pheromone-degrading enzyme [Antheraea polyphemus]
11468	0	1	0	9	10	0.0	10.7	No hits found	

11711	0	7	85	1317	1409	43.3	223.4	gij29469969 gb AAO74640.1  antimicrobial protein attacin 2 [Manduca sexta]
11845	0	2	9	17	28	4.6	10.1	gij18202160 sp O76537.1 PGRP_TRINI, peptidoglycan recognition protein
11907	0	1	25	5	31	12.7	5.9	No hits found
11949	0	7	185	60	252	94.3	10.2	gij3108071 gb AAC15762.1  putative JHE-related protein [Manduca sexta]
11993	0	0	53	0	53	27.0	0.0	gij68144076 gb AAY86076.1  diapause bioclock protein [Bombyx mori]
12005	154	0	2177	0	2331	7.2	0.0	gij2625150 gb AAB86646.1  moderately Met-rich hexamerin precursor [Hyalophora cecropia]
12137	1	0	12	0	13	6.1	0.0	No hits found
12142	0	0	1	9	10	0.5	10.7	gij158301123 ref XP_320871.3  AGAP011635-PA [Anopheles gambiae]
12151	0	0	153	0	153	78.0	0.0	gij116084 sp P14665.1 CEC5_MANSE bactericidin B-5P, cecropin-like
12190	0	1	0	7	8	0.0	8.3	No hits found
12272	1	1	0	8	10	0.0	9.5	gij195437902 ref XP_002066878.1  GK24320 [Drosophila willistoni]
12368	1	11	12	9	33	6.1	1.0	gij91079134 ref XP_975446.1  pyrroline-5-carboxylate reductase [Tribolium castaneum]
12505	0	0	52	0	52	26.5	0.0	No hits found
12546	0	1	1	8	10	0.5	9.5	No hits found
12603	0	1	0	16	17	0.0	19.0	No hits found
12681	2	0	24	2	28	6.1	2.4	gij156369498 ref XP_001628013.1  predicted protein [Nematostella vectensis]
12696	1	72	13	70	156	6.6	1.2	gij114051313 ref NP_001040109.1  chaperonin containing t-complex polypeptide 1 subunit [Bombyx mori]
12749	135	0	1462	0	1597	5.5	0.0	gij159530 gb AAA29322.1  Met-rich storage protein 3 [Manduca sexta]
12789	0	1	0	7	8	0.0	8.3	No hits found
12854	1	1	0	8	10	0.0	9.5	gij189239183 ref XP_966847.2  bile acid $\beta$ -glucosidase [Tribolium castaneum]
12861	0	1	0	7	8	0.0	8.3	No hits found
12892	0	0	0	12	12	0.0	14.2	No hits found
13129	0	1	0	7	8	0.0	8.3	No hits found
13190	15	0	117	9	141	4.0	10.7	gij27733423 gb AAO21509.1 AF413068_1 peptidoglycan recognition protein 1 [Manduca sexta]
13197	0	1	0	7	8	0.0	8.3	No hits found
13238	3	1	524	0	528	89.1	0.0	No hits found
13279	2	1	6	8	17	1.5	9.5	gij270006307 gb EFA02755.1  hypothetical protein TcasGA2_TC008488 [Tribolium castaneum]
13309	1	1	0	10	12	0.0	11.9	No hits found
13332	1	11	14	11	37	7.1	1.2	gij157113775 ref XP_001652096.1  Asp-tRNA synthetase [Aedes aegypti]
13353	0	0	1	174	175	0.5	206.6	gij195486646 ref XP_002091593.1  GE13745 [Drosophila yakuba]
13354	1	15	16	13	45	8.2	1.0	gij91089963 ref XP_973647.1  conserved hypothetical protein [Tribolium castaneum]
13425	0	1	0	7	8	0.0	8.3	gij91083033 ref XP_974766.1  sterol regulatory element-binding protein cleavage activator [T. castaneum]
13427	0	1	0	8	9	0.0	9.5	No hits found
13448	1	0	11	0	12	5.6	0.0	No hits found
13453	5	4	58	7	74	5.9	2.1	gij45594232 gb AAS68507.1  serpin-5 [Manduca sexta]
13454	0	1	17	10	28	8.7	11.9	gij45594232 gb AAS68507.1  serpin-5 [Manduca sexta]
13461	0	1	0	7	8	0.0	8.3	gij255543198 ref XP_002512662.1  ATP binding protein, putative [Ricinus communis]
13514	3	1	0	7	11	0.0	8.3	No hits found
13563	0	0	657	0	657	335.0	0.0	gij110347786 gb ABG72695.1  attacin-like protein [Antheraea mylitta]
13588	0	1	0	7	8	0.0	8.3	No hits found
13678	0	0	0	19	19	0.0	22.6	gij157128533 ref XP_001661472.1  hypothetical protein AaeL_AAEL011180 [Aedes aegypti]
13731	0	1	0	7	8	0.0	8.3	gij157130215 ref XP_001655645.1  hypothetical protein AaeL_AAEL011701 [Aedes aegypti]
13778	1	0	14	0	15	7.1	0.0	No hits found
13799	0	0	0	11	11	0.0	13.1	No hits found
13861	0	1	0	7	8	0.0	8.3	No hits found
13867	2	45	27	42	116	6.9	1.1	gij156541126 ref XP_001601669.1  ~ ribophorin II [Nasonia vitripennis]
13894	0	0	48	29	77	24.5	34.4	gij112984238 ref NP_001037460.1  cecropin B precursor [Bombyx mori]
13916	1	0	741	0	742	377.8	0.0	gij219958086 gb ACL68097.1  lebecin-related protein precursor [Manduca sexta]
13917	1	4	10	5	20	5.1	1.5	No hits found
13918	0	0	25	8	33	12.7	9.5	No hits found
13936	0	0	25	0	25	12.7	0.0	gij123725 sp P26227.1 HTIB_MANSE hemolymph trypsin inhibitor B, BPI-type
13942	1	17	19	13	50	9.7	0.9	gij242016705 ref XP_002428888.1  predicted protein [Pediculus humanus corporis]
13948	1	4	10	0	15	5.1	0.0	No hits found
13966	0	1	0	9	10	0.0	10.7	gij190570736 ref YP_001975094.1  ankyrin repeat domain protein [Wolbachia endosymbiont of Cq Pe]
14093	1	0	14	0	15	7.1	0.0	gij56418419 gb AAV91017.1  hemolymph proteinase 19 [Manduca sexta]
14097	0	1	0	19	20	0.0	22.6	No hits found
14100	0	0	8	1157	1165	4.1	1373.8	gij195486646 ref XP_002091593.1  GE13745 [Drosophila yakuba]
14104	14	0	173	13	200	6.3	15.4	gij27733423 gb AAO21509.1 AF413068_1 peptidoglycan recognition protein 1 [Manduca sexta]
14154	0	1	0	9	10	0.0	10.7	No hits found
14231	0	0	28	0	28	14.3	0.0	No hits found
14248	0	6	0	196	202	0.0	38.8	gij2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
14278	1	34	17	179	231	8.7	6.3	gij83583693 gb ABC24706.1  hemocentin-like protein 1, Ig domains [Spodoptera frugiperda]
14293	0	1	0	7	8	0.0	8.3	No hits found
14294	0	1	1	11	13	0.5	13.1	No hits found
14343	0	0	186	7	193	94.8	8.3	gij67906420 gb AAY82587.1  attacin-1 [Manduca sexta]
14366	0	1	0	7	8	0.0	8.3	No hits found
14380	0	0	106	0	106	54.0	0.0	gij67906420 gb AAY82587.1  attacin-1 [Manduca sexta]
14393	2	4	132	11	149	33.7	3.3	gij27733421 gb AAO21508.1 AF413067_1 serine protease-like protein [Manduca sexta]
14417	0	0	0	22	22	0.0	26.1	gij194753400 ref XP_001959000.1  GF12273 [Drosophila ananassae]
14426	0	1	0	12	13	0.0	14.2	No hits found
14456	0	0	1	52	53	0.5	61.7	gij2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
14496	0	1	0	18	19	0.0	21.4	No hits found
14515	2	0	34	0	36	8.7	0.0	gij148298818 ref NP_001091784.1  multi-binding protein [Bombyx mori]
14568	0	0	2	68	70	1.0	80.7	gij148298709 ref NP_001091749.1  possible antimicrobial peptide [Bombyx mori]
14572	0	1	1	7	9	0.5	8.3	No hits found
14602	0	1	1	8	10	0.5	9.5	No hits found
14641	0	0	157	0	157	80.1	0.0	gij67906420 gb AAY82587.1  attacin-1 [Manduca sexta]
14688	70	2	1129	0	1201	8.2	0.0	gij159526 gb AAA29320.1  Met-rich storage protein 1 [Manduca sexta]
14700	0	0	183	2	185	93.3	2.4	gij260765453 gb ACX49764.1  peptidoglycan recognition protein 2 [Manduca sexta]
14728	2	3	67	20	92	17.1	7.9	gij24416622 dbj BAC22502.1  putative pheromone-degrading enzyme [Antheraea polyphemus]
14752	0	0	118	2	120	60.2	2.4	gij260765453 gb ACX49764.1  peptidoglycan recognition protein 2 [Manduca sexta]



14796	0	0	0	9	9	0.0	10.7	gii114051980 ref NP_001040200.1  Myb-MuvB complex subunit Lin-52 [Bombyx mori]
14832	0	0	0	10	10	0.0	11.9	No hits found
14926	0	1	1	7	9	0.5	8.3	No hits found
14937	13	0	164	0	177	6.4	0.0	gii136206 sp P22297.1 TRF_MANSE transferrin precursor
14968	1	31	17	24	73	8.7	0.9	No hits found
14971	2	1	20	0	23	5.1	0.0	gii260907839 gb ACX53721.1  esterase [Heliothis virescens]
14972	1	0	29	5	35	14.8	5.9	gii260907839 gb ACX53721.1  esterase [Heliothis virescens]
14997	0	0	34	10	44	17.3	11.9	gii29469965 gb AAO74638.1  antimicrobial peptide cecropin 6 [Manduca sexta]
15006	0	1	0	7	8	0.0	8.3	gii27000311 gb EEZ99558.1  hypothetical TcasGA2_TC000140 [Tribolium castaneum]
15014	1	0	10	1	12	5.1	1.2	No hits found
15041	0	0	36	0	36	18.4	0.0	gii116084 sp P14665.1 CEC5_MANSE bactericidin B-5P, cecropin-like precursor
15055	1	1	16	0	18	8.2	0.0	gii112983896 ref NP_001037394.1  paralytic peptide binding protein 1 [Bombyx mori]
15057	1	0	13	0	14	6.6	0.0	No hits found
15111	1	48	8	800	857	4.1	19.8	gii2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
15142	0	1	0	7	8	0.0	8.3	gii189240401 ref XP_968302.2  optix-binding protein CG30443-PA [Tribolium castaneum]
15159	0	0	0	15	15	0.0	17.8	gii15963410 dbj BAB69462.1  attacin [Samia cynthia ricini]
15291	0	1	0	7	8	0.0	8.3	No hits found
15299	0	1	0	7	8	0.0	8.3	gii157110603 ref XP_001651170.1  eukaryotic translation initiation factor 2c [Aedes aegypti]
15311	1	3	38	13	55	19.4	5.1	gii168823411 ref NP_001108339.1  carboxylesterase CarE-7 [Bombyx mori]
15324	82	2	1492	0	1576	9.3	0.0	gii5869985 emb CAB55603.1  moderately Met-rich storage protein [Spodoptera litura]
15327	2	1	32	3	38	8.2	3.6	gii168823411 ref NP_001108339.1  carboxylesterase CarE-7 [Bombyx mori]
15339	1	0	0	9	10	0.0	10.7	No hits found
15439	1	19	11	21	52	5.6	1.3	No hits found
15475	9	0	110	0	119	6.2	0.0	No hits found
15532	1	19	12	9	41	6.1	0.6	gii157412326 ref NP_001098704.1  Relish2 [Bombyx mori]
15567	3	0	48	0	51	8.2	0.0	No hits found
15639	10	0	109	0	119	5.6	0.0	gii148298818 ref NP_001091784.1  multi-binding protein [Bombyx mori]
15667	0	1	2	10	13	1.0	11.9	No hits found
15732	0	1	253	43	297	129.0	51.1	gii67906420 gb AAY82587.1  attacin-1 [Manduca sexta]
15741	1	1	0	11	13	0.0	13.1	gii190702438 gb ACE75327.1  conserved hypothetical protein [Glyptapanteles indiensis]
15744	0	0	0	35	35	0.0	41.6	gii29469969 gb AAO74640.1  antimicrobial protein attacin 2 [Manduca sexta]
15756	0	33	1	392	426	0.5	14.1	No hits found
15822	0	2	1	19	22	0.5	11.3	No hits found
15831	1	0	11	0	12	5.6	0.0	No hits found
15852	0	0	134	0	134	68.3	0.0	No hits found
15857	0	1	0	9	10	0.0	10.7	gii27733411 gb AAO21503.1 AF413062_1 leupeptin, LPS-binding [Manduca sexta]
15899	0	1	1	7	9	0.5	8.3	No hits found
15910	1	31	4	472	508	2.0	18.1	No hits found
15931	40	37	1504	364	1945	19.2	11.7	gii7327646 gb AAB31190.2  lysozyme [Manduca sexta]
15935	1	0	4	9	14	2.0	10.7	gii195387325 ref XP_002052346.1  GJ17502 [Drosophila virilis]
15953	1	0	43	6	50	21.9	7.1	gii67906420 gb AAY82587.1  attacin-1 [Manduca sexta]
15997	0	0	142	4	146	72.4	4.7	gii67906420 gb AAY82587.1  attacin-1 [Manduca sexta]
15998	0	0	1	10	11	0.5	11.9	gii73921456 gb AAZ94260.1  immune related protein X-tox [Spodoptera frugiperda]
16018	0	0	40	12	52	20.4	14.2	gii116833115 gb ABK29470.1  immune reactive putative protease inhibitor [Helicoverpa armigera]
16027	0	0	0	9	9	0.0	10.7	No hits found
16129	1	0	212	35	248	108.1	41.6	gii67906420 gb AAY82587.1  attacin-1 [Manduca sexta]
16133	47	57	1719	440	2263	18.6	9.2	gii233964 gb AAB19535.1  lysozyme [Manduca sexta]
16150	0	1	145	3	149	73.9	3.6	gii67906420 gb AAY82587.1  attacin-1 [Manduca sexta]
16197	1	1	14	1	17	7.1	1.2	gii24416622 dbj BAC22502.1  putative pheromone-degrading enzyme [Antheraea polyphemus]
16214	0	1	0	8	9	0.0	9.5	No hits found
16292	0	0	1	34	35	0.5	40.4	gii148298709 ref NP_001091749.1  possible antimicrobial peptide [Bombyx mori]
16383	0	0	98	0	98	50.0	0.0	No hits found
16396	0	1	0	7	8	0.0	8.3	No hits found
16399	0	2	56	10	68	28.6	5.9	gii189181680 ref NP_001121191.1  carboxylesterase CarE-12 [Bombyx mori]
16411	0	3	33	17	53	16.8	6.7	gii189181680 ref NP_001121191.1  carboxylesterase CarE-12 [Bombyx mori]
16427	1	0	0	12	13	0.0	14.2	gii242010713 ref XP_002426104.1  E3 ubiquitin-protein ligase Nedd-4 [Pediculus humanus corporis]
16520	1	0	664	1	666	338.6	1.2	gii4262357 gb AAD14591.1  scolexin A [Manduca sexta]
16542	1	7	14	12	34	7.1	2.0	No hits found
16576	0	0	0	18	18	0.0	21.4	gii74767320 sp Q5MGE6.1 DFFP3_LONON defense protein 3 precursor, attacin E
16606	8	0	164	0	172	10.5	0.0	gii136206 sp P22297.1 TRF_MANSE transferrin precursor
16643	0	1	0	17	18	0.0	20.2	gii193702213 ref XP_001943843.1  vacuolar proteinsorting-associated protein [Acyrtosiphon pisum]
16706	1	31	18	24	74	9.2	0.9	No hits found
16754	2	0	147	0	149	37.5	0.0	No hits found
16782	1	0	228	0	229	116.3	0.0	No hits found
16799	2	0	23	3	28	5.9	3.6	No hits found
16810	0	1	0	7	8	0.0	8.3	gii189237972 ref XP_001812042.1  ~ AGAP009278-PA [Tribolium castaneum]
16827	0	1	3	8	12	1.5	9.5	No hits found
16852	23	20	538	137	718	11.9	8.1	No hits found
16863	0	1	1	7	9	0.5	8.3	No hits found
16883	0	0	1	12	13	0.5	14.2	No hits found
16917	0	40	2	519	561	1.0	15.4	gii2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
16949	1	46	10	38	95	5.1	1.0	gii195053828 ref XP_001993828.1  GH19024 [Drosophila grimshawi]
17020	2	0	29	0	31	7.4	0.0	No hits found
17044	0	32	8	307	347	4.1	11.4	gii254746342 emb CAX16636.1  putative C1A Cys protease precursor [Manduca sexta]
17048	0	1	0	95	96	0.0	112.8	gii2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
17051	0	1	0	7	8	0.0	8.3	No hits found
17058	0	32	4	545	581	2.0	20.2	gii2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
17080	0	0	25	3	28	12.7	3.6	gii156891151 gb ABU96713.1  diapausin precursor [Spodoptera litura]
17114	0	1	1	7	9	0.5	8.3	No hits found
17135	0	9	103	1157	1269	52.5	152.6	gii110649242 emb CAL25130.1  attacin II [Manduca sexta]
17184	0	11	76	449	536	38.8	48.5	gii73921456 gb AAZ94260.1  immune related protein, X-tox [Spodoptera frugiperda]

17202	0	0	216	1	217	110.1	1.2	No hits found
17206	3	0	136	0	139	23.1	0.0	gii136206 sp P22297.1 TRF_MANSE transferrin precursor
17214	0	41	5	411	457	2.5	11.9	gii254746342 emb CAX16636.1  putative C1A Cys protease precursor [Manduca sexta]
17215	0	9	0	108	117	0.0	14.2	gii254746342 emb CAX16636.1  putative C1A Cys protease precursor [Manduca sexta]
17301	1	0	272	0	273	138.7	0.0	gii219958086 gb ACL68097.1  lebobcin-related protein precursor [Manduca sexta]
17304	0	1	412	13	426	210.1	15.4	gii67906420 gb AAy82587.1  attacin-1 [Manduca sexta]
17316	0	0	98	0	98	50.0	0.0	No hits found
17350	0	0	205	0	205	104.5	0.0	gii29469969 gb AAO74640.1  antimicrobial protein attacin 2 [Manduca sexta]
17434	1	0	314	0	315	160.1	0.0	gii219958086 gb ACL68097.1  lebobcin-related protein precursor [Manduca sexta]
17439	0	0	98	31	129	50.0	36.8	gii110649236 emb CAL25127.1  ~ moricin [Manduca sexta]
17516	4	0	126	0	130	16.1	0.0	gii228382 prf 1803340A Met-rich storage protein SPIA
17537	0	0	1	320	321	0.5	380.0	No hits found
17568	0	0	0	400	400	0.0	474.9	No hits found
17598	2	1	3	7	13	0.8	8.3	No hits found
17610	9	2	82	159	252	4.6	94.4	No hits found
17630	0	3	57	20	80	29.1	7.9	gii13359096 dbj BAB33297.1  esterase-like protein (ESR-LP) [Bombyx mori]
17631	0	14	20	90	124	10.2	7.6	No hits found
17632	0	0	83	6	89	42.3	7.1	gii67906420 gb AAy82587.1  attacin-1 [Manduca sexta]
17705	0	0	36	0	36	18.4	0.0	gii67906420 gb AAy82587.1  attacin-1 [Manduca sexta]
17710	2	1	2	7	12	0.5	8.3	No hits found
17751	0	24	1	269	294	0.5	13.3	gii2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
17764	0	1	0	8	9	0.0	9.5	No hits found
17836	0	1	0	8	9	0.0	9.5	No hits found
17841	0	0	0	15	15	0.0	17.8	No hits found
18000	0	0	37	0	37	18.9	0.0	No hits found
18001	0	1	0	7	8	0.0	8.3	gii126635756 gb ABO21763.1  Toll receptor [Manduca sexta]
18018	0	5	63	30	98	32.1	7.1	No hits found
18118	0	0	26	2	28	13.3	2.4	No hits found
18150	0	0	0	18	18	0.0	21.4	gii148298709 ref NP_001091749.1  possible antimicrobial peptide [Bombyx mori]
18239	3	0	67	0	70	11.4	0.0	gii136206 sp P22297.1 TRF_MANSE transferrin precursor
18262	0	0	10	83	93	5.1	98.5	gii74844658 sp Q95V34.1 RS4_SPOFR 40S ribosomal protein S4
18308	15	0	169	0	184	5.7	0.0	gii136206 sp P22297.1 TRF_MANSE transferrin precursor
18324	0	0	25	0	25	12.7	0.0	gii67906420 gb AAy82587.1  attacin-1 [Manduca sexta]
18431	0	1	0	9	10	0.0	10.7	No hits found
18441	0	1	0	65	66	0.0	77.2	gii2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
18469	0	1	1	8	10	0.5	9.5	No hits found
18544	0	1	0	7	8	0.0	8.3	No hits found
18669	0	0	285	0	285	145.3	0.0	gii4262357 gb AAD14591.1  scolexin A [Manduca sexta]
18670	0	0	139	0	139	70.9	0.0	gii4262357 gb AAD14591.1  scolexin A [Manduca sexta]
18699	0	1	26	114	141	13.3	135.4	gii148298709 ref NP_001091749.1  possible antimicrobial peptide [Bombyx mori]
18797	9	0	549	0	558	31.1	0.0	gii39843367 gb AAR32136.1  VHDL receptor [Helicoverpa zea]
18799	0	0	26	0	26	13.3	0.0	No hits found
18814	0	0	235	29	264	119.8	34.4	gii67906420 gb AAy82587.1  attacin-1 [Manduca sexta]
18819	0	5	59	405	469	30.1	96.2	gii73921456 gb AAZ94260.1  immune related protein X-tox [Spodoptera frugiperda]
18869	0	13	0	101	114	0.0	9.2	gii254746346 emb CAX16638.1  putative C1A Cys protease precursor [Spodoptera frugiperda]
18963	0	0	254	0	254	129.5	0.0	gii4262357 gb AAD14591.1  scolexin A [Manduca sexta]
18977	0	1	20	2	23	10.2	2.4	gii67906420 gb AAy82587.1  attacin-1 [Manduca sexta]

\* RA and ARN are calculated using original read numbers as described in *Section 2.3*. Listed here are contigs with  $RA_{IF/CF} > 5$ ,  $RA_{IH/CH} > 8$ ,  $ARN_{IF} > 10$  when  $RN_{CF} = 0$ , or  $ARN_{IH} > 10$  when  $RN_{CH} = 0$ .  $RA_{IF/CF}$  and  $RA_{IH/CH}$  values are shown in red if they are greater than 5 and 8, respectively.  $ARN_{IF}$  and  $ARN_{IH}$  values are shown in blue if they are higher than 10. In the columns of RA or ARN, cells shaded yellow and blue represent fat body- and hemocyte-specific gene expression, respectively.

**Table S2. A complete list of 148 DN CIFH contigs with RA<sub>CF/IF</sub> or CH/IH >10 (or ARN<sub>CF</sub> or CH >20)**

CIFH contig #	Original read #					RA or ARN		BLAST results
	CF	CH	IF	IH	Total	CF/IF	CH/IH	
00010	29	464	3	286	782	19.0	1.4	gi 242005387 ref XP_002423550.1  cAMP-dependent protein kinase subunit [Pediculus humanus corporis]
00015	88	3814	13	3140	7055	13.3	1.0	gi 6164595 gb AAF04457.1 AF078161_1 lacunin [Manduca sexta]
00248	7	200	1	155	363	13.7	1.1	gi 157113908 ref XP_001657920.1  N-acetyllactosaminide β-1,3-NAG transferase [Aedes aegypti]
00379	10	308	1	184	503	19.6	1.4	gi 170037242 ref XP_001846468.1  Leu-rich repeat-containing protein 1 [Culex quinquefasciatus]
00623	12	527	1	443	983	23.5	1.0	gi 157132531 ref XP_001656056.1  ~ odd Oz protein [Aedes aegypti]
00628	7	38	1	39	85	13.7	0.8	gi 170030982 ref XP_001843366.1  rho/rac/cdc GTPase-activating protein [Culex quinquefasciatus]
00773	49	12	93	1	155	1.0	10.1	gi 157103945 ref XP_001648193.1  dihydropyrimidine dehydrogenase [Aedes aegypti]
00851	6	42	1	26	75	11.8	1.4	gi 158300087 ref XP_320080.3  AGAP009284-PA [Anopheles gambiae]
01235	21	654	3	353	1031	13.7	1.6	No hits found
01289	7	45	1	31	84	13.7	1.2	gi 187281809 ref NP_001119723.1  kinesin-like protein Ncd [Bombyx mori]
02637	5	12	9	1	27	1.1	10.1	gi 116789445 gb ABK25249.1  unknown [Picea sitchensis]
02717	24	891	4	778	1697	11.8	1.0	gi 6164595 gb AAF04457.1 AF078161_1 lacunin [Manduca sexta]
02730	8	15	8	1	32	2.0	12.6	gi 2970687 gb AAC06038.1  β-glucosidase precursor [Spodoptera frugiperda]
03286	21	635	0	27	683	41.2	19.8	gi 254746344 emb CAX16637.1  putative C1A Cys protease precursor [Manduca sexta]
03592	10	21	1	14	46	19.6	1.3	No hits found
03654	21	686	2	647	1356	20.6	0.9	gi 157134123 ref XP_001663157.1  atlastin [Aedes aegypti]
03792	7	20	1	5	33	13.7	3.4	gi 91090218 ref XP_968156.1  ~ E1a binding protein P400 [Tribolium castaneum]
03996	6	6	1	6	19	11.8	0.8	gi 170052039 ref XP_001862040.1  small GTP-binding protein [Culex quinquefasciatus]
04104	0	13	0	1	14	0.0	10.9	No hits found
04344	0	12	0	1	13	0.0	10.1	No hits found
04604	5	40	2	2	49	4.9	16.8	No hits found
04970	6	23	1	18	48	11.8	1.1	No hits found
05495	0	14	1	1	16	0.0	11.8	No hits found
05560	24	965	4	440	1433	11.8	1.8	gi 254746344 emb CAX16637.1  putative C1A Cys protease precursor [Manduca sexta]
05824	8	0	1	4	13	15.7	0.0	gi 116326818 ref YP_803355.1  hypothetical TnAV2c gp132 [Trichoplusia ni ascovirus 2c]
06063	2	12	0	1	15	3.9	10.1	No hits found
06283	17	720	1	207	945	33.3	2.9	No hits found
06497	55	3419	5	1335	4814	21.6	2.2	gi 217262 dbj BAA03124.1  lectin [Bombyx mori]
06591	6	96	1	77	180	11.8	1.1	No hits found
06713	0	12	0	1	13	0.0	10.1	gi 193613364 ref XP_001943860.1  ~ limkain b1 [Acyrtosiphon pisum]
06902	12	3	2	0	17	11.8	2.5	gi 114050917 ref NP_001040414.1  3-hydroxyacyl-CoA dehydrogenase [Bombyx mori]
07139	21	767	2	262	1052	20.6	2.5	gi 110649216 emb CAL25117.1  dVA-AP3 [Manduca sexta]
07210	3	14	0	1	18	5.9	11.8	No hits found
07515	7	1	1	0	9	13.7	0.8	gi 158295141 ref XP_316035.4  AGAP005993-PA [Anopheles gambiae]
07642	9	601	1	153	764	17.7	3.3	gi 55139125 gb AAV41236.1  immunectin-3 [Manduca sexta]
07754	0	12	1	1	14	0.0	10.1	gi 17895231 ref NP_001026433.1  coiled-coil domain containing 93 [Gallus gallus]
08034	1	12	1	1	15	2.0	10.1	No hits found
08686	9	506	1	395	911	17.7	1.1	gi 82880638 gb ABB92836.1  scavenger receptor C-like protein [Spodoptera frugiperda]
08705	8	10	1	5	24	15.7	1.7	gi 224084416 ref XP_002192181.1  selenium binding protein 1 [Taeniopygia guttata]
08707	6	9	1	13	29	11.8	0.6	gi 24585081 ref NP_609923.2  CG10639 [Drosophila melanogaster]
08801	1	14	1	1	17	2.0	11.8	gi 91081401 ref XP_972667.1  ~ exosome component 8 [Tribolium castaneum]
09511	11	0	1	0	12	21.6	0.0	No hits found
09847	0	13	0	1	14	0.0	10.9	gi 194745608 ref XP_001955279.1  GF16313 [Drosophila ananassae]
10124	32	1637	4	1073	2746	15.7	1.3	gi 114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
10316	0	13	1	1	15	0.0	10.9	gi 157106599 ref XP_001649397.1  hypothetical protein AaeL_AAEL004554 [Aedes aegypti]
10439	12	0	1	0	13	23.5	0.0	gi 183979241 dbj BAG30782.1  cuticular protein CPR41B [Papilio xuthus]
10495	0	16	1	1	18	0.0	13.5	No hits found
11030	13	0	2	0	15	12.7	0.0	gi 3121953 sp Q25504.1 CU16_MANSE larval cuticle protein 16/17 precursor
11098	40	0	3	0	43	26.1	0.0	gi 159526 gb AAA29320.1  Met-rich storage protein 1 [Manduca sexta]
11161	0	12	1	1	14	0.0	10.1	gi 125808686 ref XP_001360831.1  GA18253 [Drosophila pseudoobscura]
11280	62	3164	3	1040	4269	40.5	2.6	gi 91090548 ref XP_971239.1  ~ hemolectin CG7002-PA [Tribolium castaneum]
11888	27	955	3	468	1453	17.7	1.7	No hits found
12040	2	14	0	1	17	3.9	11.8	No hits found
12095	10	0	1	0	11	19.6	0.0	gi 194741936 ref XP_001953465.1  GF17208 [Drosophila ananassae]
12848	0	16	0	1	17	0.0	13.5	gi 2822109 sp P14730.2 EXPL_RAT extracellular matrix inhibitor, WDNM1 precursor
12886	8	0	1	1	10	15.7	0.0	No hits found
13013	7	1	0	0	9	13.7	0.8	gi 189031278 gb ACD74812.1  cuticle protein 1 [Helicoverpa armigera]
13094	15	10	1	5	31	29.4	1.7	gi 183979298 dbj BAG30762.1  ~ CG5304-PA [Papilio xuthus]
13345	7	0	1	0	8	13.7	0.0	No hits found
13440	15	694	0	461	1170	29.4	1.3	No hits found
13813	31	2398	4	848	3281	15.2	2.4	gi 110758905 ref XP_395067.3  ~ hemolectin CG7002-PA [Apis mellifera]
13842	14	677	2	228	921	13.7	2.5	gi 138601 sp P19616.1 VITM_MANSE microvitellogenin precursor
14038	1	36	0	1	38	2.0	30.3	No hits found
14129	7	0	1	0	8	13.7	0.0	gi 91078692 ref XP_971204.1  phospholipase A2, group VI (cytosolic, Ca-independent) [T. castaneum]
14210	6	10	1	4	21	11.8	2.1	No hits found
14370	11	879	0	307	1197	21.6	2.4	No hits found
14374	0	12	1	1	14	0.0	10.1	No hits found
14570	46	2032	1	735	2814	90.2	2.3	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
14760	38	2505	1	902	3446	74.5	2.3	gi 156545430 ref XP_001606650.1  ~ CG7002-PA [Nasonia vitripennis]
14781	28	0	3	1	32	18.3	0.0	gi 114052677 ref NP_001040269.1  phosphoserine aminotransferase 1 [Bombyx mori]
14979	12	288	0	233	533	23.5	1.0	No hits found
15047	18	1077	0	545	1640	35.3	1.7	gi 217262 dbj BAA03124.1  lectin [Bombyx mori]
15069	28	1314	2	441	1785	27.5	2.5	No hits found
15116	12	348	2	285	647	11.8	1.0	gi 82880638 gb ABB92836.1  scavenger receptor C-like protein [Spodoptera frugiperda]
15132	9	0	1	0	10	17.7	0.0	gi 112984526 ref NP_001037199.1  promoting protein [Bombyx mori]
15201	1	75	0	5	81	2.0	12.6	gi 254746344 emb CAX16637.1  putative C1A Cys protease precursor [Manduca sexta]
15250	31	1251	0	624	1906	60.8	1.7	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
15276	0	12	0	1	13	0.0	10.1	No hits found
15380	35	2300	5	864	3204	13.7	2.2	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
15465	6	0	1	1	8	11.8	0.0	gi 170574840 ref XP_001892989.1  hypothetical Bm1_07595 [Brugia malayi]
15506	52	2799	5	1011	3867	20.4	2.3	gi 91090548 ref XP_971239.1  ~ hemolectin CG7002-PA [Tribolium castaneum]
15594	13	975	1	255	1244	25.5	3.2	gi 91090548 ref XP_971239.1  ~ hemolectin CG7002-PA [Tribolium castaneum]
15764	20	788	0	397	1205	39.2	1.7	gi 217262 dbj BAA03124.1  lectin [Bombyx mori]
15792	21	1412	1	498	1932	41.2	2.4	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
16105	10	23	1	42	76	19.6	0.5	gi 91087179 ref XP_975411.1  ~ CG9471-PB [Tribolium castaneum]
16288	17	747	1	285	1050	33.3	2.2	gi 2738863 gb AAB94557.1  hemocyte protease-1 [Manduca sexta]
16289	49	3216	5	1212	4482	19.2	2.2	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
16291	28	1004	1	323	1356	54.9	2.6	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]



16594	33	1997	2	695	2727	32.4	2.4	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
16677	26	1278	0	500	1804	51.0	2.2	gii217262 dbj BAA03124.1  lectin [Bombyx mori]
16719	30	1364	2	511	1907	29.4	2.2	gii2738863 gb AAB94557.1  hemocyte protease-1 [Manduca sexta]
16801	43	1480	4	565	2092	21.1	2.2	gii217262 dbj BAA03124.1  lectin [Bombyx mori]
16808	1	15	0	1	17	2.0	12.6	No hits found
16842	29	1594	2	635	2260	28.4	2.1	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
16877	29	986	2	304	1321	28.4	2.7	gii217262 dbj BAA03124.1  lectin [Bombyx mori]
16886	15	874	0	431	1320	29.4	1.7	gii217262 dbj BAA03124.1  lectin [Bombyx mori]
16922	35	1134	1	661	1831	68.6	1.4	gii114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
16927	22	839	1	401	1263	43.1	1.8	No hits found
17085	52	2317	4	1666	4039	25.5	1.2	gii74763772 sp O44249.3 PRP1_MANSE proPO-p1
17102	16	933	1	330	1280	31.4	2.4	gii2738863 gb AAB94557.1  hemocyte protease-1 [Manduca sexta]
17159	33	1207	0	424	1664	64.7	2.4	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17174	21	742	0	341	1104	41.2	1.8	No hits found
17315	51	2439	9	1676	4175	11.1	1.2	gii74763772 sp O44249.3 PRP1_MANSE proPO-p1
17330	24	1162	2	729	1917	23.5	1.3	gii114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
17420	34	1330	1	774	2139	66.7	1.4	gii74763772 sp O44249.3 PRP1_MANSE proPO-p1
17421	24	1184	0	476	1684	47.1	2.1	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17469	10	695	1	510	1216	19.6	1.1	No hits found
17471	23	1173	0	491	1687	45.1	2.0	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17582	31	1551	4	544	2130	15.2	2.4	No hits found
17612	13	895	2	739	1649	12.7	1.0	gii74763772 sp O44249.3 PRP1_MANSE proPO-p1
17629	21	1086	4	677	1788	10.3	1.4	gii74763772 sp O44249.3 PRP1_MANSE proPO-p1
17637	6	0	1	0	7	11.8	0.0	No hits found
17650	12	668	2	451	1133	11.8	1.2	No hits found
17700	19	549	1	189	758	37.3	2.4	gii217262 dbj BAA03124.1  lectin [Bombyx mori]
17732	20	1241	3	447	1711	13.1	2.3	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17735	7	1	1	1	10	13.7	0.8	No hits found
17769	21	1312	2	476	1811	20.6	2.3	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17829	12	612	0	397	1021	23.5	1.3	No hits found
17958	25	1323	3	940	2291	16.3	1.2	gii75038472 sp Q25519.3 PRP2_MANSE proPO-p2
17978	16	301	3	114	434	10.5	2.2	gii254746344 emb CAX16637.1  putative C1A Cys protease precursor [Manduca sexta]
18004	49	1944	9	1436	3438	10.7	1.1	gii75038472 sp Q25519.3 PRP2_MANSE proPO-p2
18032	22	1216	0	441	1679	43.1	2.3	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18045	19	867	2	282	1170	18.6	2.6	gii156545430 ref XP_001606650.1  ~ CG7002-PA [Nasonia vitripennis]
18065	21	905	4	712	1642	10.3	1.1	gii74763772 sp O44249.3 PRP1_MANSE proPO-p1
18067	18	987	2	352	1359	17.7	2.4	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18097	22	960	0	348	1330	43.1	2.3	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18235	22	992	2	328	1344	21.6	2.5	No hits found
18261	11	790	1	308	1110	21.6	2.2	No hits found
18286	29	1294	1	404	1728	56.9	2.7	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18304	18	669	0	291	978	35.3	1.9	No hits found
18325	22	1278	2	470	1772	21.6	2.3	No hits found
18326	11	484	0	213	708	21.6	1.9	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18335	2	15	0	1	18	3.9	12.6	No hits found
18463	24	1035	1	636	1696	47.1	1.4	gii74763772 sp O44249.3 PRP1_MANSE proPO-p1
18480	13	574	0	201	788	25.5	2.4	No hits found
18482	11	0	0	0	11	21.6	0.0	gii114240 sp P14296.1 ARYA_MANSE arylphorin $\alpha$ subunit precursor
18516	56	2042	7	1293	3398	15.7	1.3	gii75038472 sp Q25519.3 PRP2_MANSE proPO-p2
18551	16	928	2	283	1229	15.7	2.8	gii91090548 ref XP_971239.1  ~ hemolectin CG7002-PA [Tribolium castaneum]
18611	0	12	4	1	17	0.0	10.1	gii12585261 sp Q9U639.1 HSP7D_MANSE heat shock 70 kDa protein cognate 4 (Hsp70-4)
18719	10	475	1	140	626	19.6	2.9	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18721	15	456	0	212	683	29.4	1.8	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18766	20	895	1	665	1581	39.2	1.1	No hits found
18794	15	527	0	284	826	29.4	1.6	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18816	9	851	1	259	1120	17.7	2.8	No hits found
18860	24	705	1	385	1115	47.1	1.5	gii114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
18887	20	1028	2	575	1625	19.6	1.5	gii74763772 sp O44249.3 PRP1_MANSE proPO-p1
18892	6	0	1	0	7	11.8	0.0	No hits found
18997	24	1064	3	383	1474	15.7	2.3	gii162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]

\* RA and ARN are calculated using original read numbers as described in Section 2.3. Listed here are contigs with  $RA_{CF/IF} > 10$ ,  $RA_{CH/IH} > 10$ ,  $ARN_{CF} > 20$  when  $RN_{IF} = 0$ , or  $ARN_{CH} > 20$  when  $RN_{IH} = 0$ .  $RA_{CF/IF}$  and  $RA_{CH/IH}$  values are shown in red if they are greater than 10, whereas  $ARN_{CF}$  and  $ARN_{CH}$  values are shown in blue if they are higher than 20. In the columns of RA or ARN, cells shaded yellow and blue represent fat body- and hemocyte-specific gene expression, respectively.

**Table S3. A complete list of 161 HC CIFH contigs with RA<sub>CH/CF</sub> or IH/IF >40 (or ARN<sub>CH</sub> or IH >80)**

CIFH contig #	Original read #					RA or ARN		BLAST results
	CF	CH	IF	IH	Total	CH/CF	IH/IF	
00010	29	464	3	286	782	3.3	46.0	gi 242005387 ref XP_002423550.1  cAMP-dependent protein kinase catalytic subunit [Pediculus humanus corporis]
00015	88	3814	13	3140	7055	9.0	116.6	gi 6164595 gb AAF04457.1 AF078161_1 lacunin [Manduca sexta]
00028	13	958	4	754	1729	15.3	91.0	gi 91081003 ref XP_975140.1  ~ odd Oz protein [Tribolium castaneum]
00145	4	229	1	177	411	11.9	85.4	No hits found
00248	7	200	1	155	363	5.9	74.8	gi 157113908 ref XP_001657920.1  N-acetyllactosaminidase β-1,3-NAG transferase [Aedes aegypti]
00379	10	308	1	184	503	6.4	88.8	gi 170037242 ref XP_001846468.1  Leu-rich repeat-containing protein 1 [Culex quinquefasciatus]
00541	14	567	7	760	1348	8.4	52.4	gi 170029717 ref XP_001842738.1  Leu-rich repeat-containing G-protein coupled receptor 4 [Culex quinquefasciatus]
00569	4	182	1	176	363	9.4	85.0	gi 283135216 ref NP_001164363.1  homeobox protein prospero [Nasonia vitripennis]
00623	12	527	1	443	983	9.1	213.8	gi 157132531 ref XP_001656056.1  odd Oz protein [Aedes aegypti]
00752	0	38	1	164	203	7.9	79.2	gi 194859640 ref XP_001969420.1  GG23966 [Drosophila erecta]
00802	3	203	3	253	462	14.0	40.7	gi 260840271 ref XP_002613791.1  hypothetical BRAFLDRAFT_85332 [Branchiostoma floridae]
00839	3	340	1	226	570	23.5	109.1	gi 242021897 ref XP_002431379.1  conserved hypothetical protein [Pediculus humanus corporis]
00882	7	268	0	261	536	7.9	126.0	gi 112983326 ref NP_001037620.1  ras-related GTP-binding protein Rab3 [Bombyx mori]
01064	5	134	1	116	256	5.6	56.0	gi 48095930 ref XP_394560.1  Jagged-1 precursor [Jagged1, hJ1, CD339 antigen] [Apis mellifera]
01235	21	654	3	353	1031	6.5	56.8	No hits found
01311	9	608	3	483	1103	14.0	77.7	No hits found
01429	6	238	2	180	426	8.2	43.4	gi 157134123 ref XP_001663157.1  atlastin [Aedes aegypti]
01609	1	71	1	144	217	14.7	69.5	gi 134001247 gb ABO45233.1  reverse transcriptase [Ostrinia nubilalis]
01945	1	134	1	109	245	27.8	52.6	No hits found
02159	3	101	1	144	249	7.0	69.5	gi 114052056 ref NP_001040346.1  septin [Bombyx mori]
02473	10	255	2	382	649	5.3	92.2	gi 281362668 ref NP_651533.2  eater [Drosophila melanogaster]
02717	24	891	4	778	1697	7.7	93.9	gi 6164595 gb AAF04457.1 AF078161_1 lacunin [Manduca sexta]
02852	23	1128	7	885	2043	10.2	61.0	gi 66391199 ref YP_239364.1  hypothetical protein [Microplitis demolitor bracovirus]
02964	3	204	1	107	315	14.1	51.6	No hits found
02977	16	524	5	752	1297	6.8	72.6	No hits found
03225	1	25	1	143	170	5.2	69.0	gi 195445668 ref XP_002070431.1  GK11035 [Drosophila willistoni]
03246	3	80	1	129	213	5.5	62.3	gi 83583697 gb ABC24708.1  G protein-coupled receptor [Spodoptera frugiperda]
03287	7	493	0	237	737	14.6	114.4	gi 114052174 ref NP_001040228.1  aminoacylase [Bombyx mori]
03390	3	211	1	106	321	14.6	51.2	No hits found
03654	21	686	2	647	1356	6.8	156.2	gi 157134123 ref XP_001663157.1  atlastin [Aedes aegypti]
04085	0	34	3	268	305	7.0	43.1	gi 206725499 ref NP_001128673.1  cathepsin L like protein [Bombyx mori]
04278	3	141	1	154	299	9.7	74.3	gi 270001550 gb EEZ97997.1  hypothetical TcasGA2_TC000395 [Tribolium castaneum]
04746	0	0	7	608	615	0.0	41.9	gi 195486646 ref XP_002091593.1  GE13745 [Drosophila yakuba]
05560	24	965	4	440	1433	8.3	53.1	gi 254746344 emb CAX16637.1  putative C1A Cys protease precursor [Manduca sexta]
05577	4	157	22	1895	2078	8.1	41.6	gi 254746342 emb CAX16636.1  putative C1A Cys protease precursor [Manduca sexta]
05933	1	189	1	141	332	39.2	68.1	gi 82880638 gb ABB92836.1  scavenger receptor C-like protein [Spodoptera frugiperda]
06283	17	720	1	207	945	8.8	99.9	No hits found
06319	1	102	1	116	220	21.1	56.0	gi 83583697 gb ABC24708.1  G protein-coupled receptor [Spodoptera frugiperda]
06497	55	3419	5	1335	4814	12.9	128.9	gi 217262 dbj BAA03124.1  lectin [Bombyx mori]
07139	21	767	2	262	1052	7.6	63.2	gi 110649216 emb CAL25117.1  dVA-AP3 [Manduca sexta]
07199	2	73	1	102	178	7.6	49.2	gi 110649250 emb CAL25134.1  immulectin III [Manduca sexta]
07480	3	248	2	193	446	17.1	46.6	gi 91086517 ref XP_971701.1  ~Ntr CG6698-PA [Tribolium castaneum]
07642	9	601	1	153	764	13.8	73.9	gi 55139125 gb AAV41236.1  immulectin-3 [Manduca sexta]
07883	0	0	3	792	795	0.0	127.4	gi 157128533 ref XP_001661472.1  hypothetical protein AaeL_AAEL011180 [Aedes aegypti]
08216	1	43	1	84	129	8.9	40.5	No hits found
08524	9	336	2	662	1009	7.7	159.8	gi 2738863 gb AAB94557.1  hemocyte protease-1 [Manduca sexta]
08561	0	0	3	353	356	0.0	56.8	No hits found
08686	9	506	1	395	911	11.7	190.7	gi 82880638 gb ABB92836.1  scavenger receptor SR-C-like protein [Spodoptera frugiperda]
09035	0	1	2	723	726	0.2	174.5	No hits found
10124	32	1637	4	1073	2746	10.6	129.5	gi 114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
11280	62	3164	3	1040	4269	10.6	167.3	gi 91090548 ref XP_971239.1  ~ hemolectin CG7002-PA [Tribolium castaneum]
11888	27	955	3	468	1453	7.3	75.3	No hits found
12527	2	101	1	196	300	10.5	94.6	gi 2738863 gb AAB94557.1  hemocyte protease-1 [Manduca sexta]
13271	5	212	1	139	357	8.8	67.1	gi 82880638 gb ABB92836.1  scavenger receptor SR-C-like protein [Spodoptera frugiperda]
13353	0	0	1	174	175	0.0	84.0	gi 195486646 ref XP_002091593.1  GE13745 [Drosophila yakuba]
13440	15	694	0	461	1170	9.6	222.5	No hits found
13452	6	374	0	240	620	12.9	115.8	gi 55139125 gb AAV41236.1  immulectin-3 [Manduca sexta]
13813	31	2398	4	848	3281	16.0	102.3	gi 110758905 ref XP_395067.3  ~Hemolectin CG7002-PA [Apis mellifera]
13842	14	677	2	228	921	10.0	55.0	gi 138601 sp P19616.1 VITM_MANSE microvitellogenin precursor
14100	0	0	8	1157	1165	0.0	69.8	gi 195486646 ref XP_002091593.1  GE13745 [Drosophila yakuba]
14248	0	6	0	196	202	1.2	94.6	gi 2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
14370	11	879	0	307	1197	16.6	148.2	No hits found
14570	46	2032	1	735	2814	9.2	354.8	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
14760	38	2505	1	902	3446	13.7	435.4	gi 156545430 ref XP_001606650.1  ~CG7002-PA [Nasonia vitripennis]
14811	5	136	1	121	263	5.6	58.4	gi 221055473 ref XP_002258875.1  hypothetical, conserved in Plasmodium [Plasmodium knowlesi]
14979	12	288	0	233	533	5.0	112.5	No hits found
14991	2	271	2	169	444	28.1	40.8	gi 55139125 gb AAV41236.1  immulectin-3 [Manduca sexta]
15047	18	1077	0	545	1640	12.4	263.1	gi 217262 dbj BAA03124.1  lectin [Bombyx mori]
15069	28	1314	2	441	1785	9.7	106.4	No hits found
15111	1	48	8	800	857	9.9	48.3	gi 2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
15112	41	1848	10	1129	3028	9.3	54.5	gi 114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
15116	12	348	2	285	647	6.0	68.8	gi 82880638 gb ABB92836.1  scavenger receptor C-like protein [Spodoptera frugiperda]
15250	31	1251	0	624	1906	8.4	301.2	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
15269	7	368	3	309	687	10.9	49.7	gi 6164595 gb AAF04457.1 AF078161_1 lacunin [Manduca sexta]
15350	8	425	2	316	751	11.0	76.3	gi 82880638 gb ABB92836.1  scavenger receptor C-like protein [Spodoptera frugiperda]
15380	35	2300	5	864	3204	13.6	83.4	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
15506	52	2799	5	1011	3867	11.2	97.6	gi 91090548 ref XP_971239.1  ~ hemolectin CG7002-PA [Tribolium castaneum]
15564	4	182	1	119	306	9.4	57.4	gi 82880638 gb ABB92836.1  scavenger receptor SR-C-like protein [Spodoptera frugiperda]
15584	3	241	1	202	447	16.7	97.5	gi 66535330 ref XP_623280.1  ~ atlastin CG6668-PA, isoformA [Apis mellifera]
15594	13	975	1	255	1244	15.5	123.1	gi 91090548 ref XP_971239.1  ~ hemolectin CG7002-PA [Tribolium castaneum]
15756	0	33	1	392	426	6.8	189.2	No hits found
15764	20	788	0	397	1205	8.2	191.6	gi 217262 dbj BAA03124.1  lectin [Bombyx mori]
15792	21	1412	1	498	1932	13.9	240.4	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
15820	4	168	2	209	383	8.7	50.4	No hits found
15910	1	31	4	472	508	6.4	57.0	No hits found
15986	12	846	3	265	1126	14.6	42.6	gi 217262 dbj BAA03124.1  lectin [Bombyx mori]
16278	9	821	0	405	1235	18.9	195.5	gi 162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
16288	17	747	1	285	1050	9.1	137.6	gi 2738863 gb AAB94557.1  hemocyte protease-1 [Manduca sexta]

16289	49	3216	5	1212	4482	13.6	117.0	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
16291	28	1004	1	323	1356	7.4	155.9	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
16452	3	178	0	166	347	12.3	80.1	No hits found
16594	33	1997	2	695	2727	12.5	167.7	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
16627	6	484	0	227	717	16.7	109.6	gij114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
16677	26	1278	0	500	1804	10.2	241.3	gij217262 dbj BAA03124.1  lectin [Bombyx mori]
16719	30	1364	2	511	1907	9.4	123.3	gij2738863 gb AAB94557.1  hemocyte protease-1 [Manduca sexta]
16801	43	1480	4	565	2092	7.1	68.2	gij217262 dbj BAA03124.1  lectin [Bombyx mori]
16815	6	564	0	332	902	19.5	160.3	gij75038472 sp Q25519.3 PRP2_MANSE Phenoloxidase subunit 2, proPO-p2
16831	3	188	1	160	352	13.0	77.2	No hits found
16842	29	1594	2	635	2260	11.4	153.3	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
16877	29	986	2	304	1321	7.0	73.4	gij217262 dbj BAA03124.1  lectin [Bombyx mori]
16886	15	874	0	431	1320	12.1	208.0	gij217262 dbj BAA03124.1  lectin [Bombyx mori]
16917	0	40	2	519	561	8.3	125.3	gij2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
16922	35	1134	1	661	1831	6.7	319.1	gij114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
16927	22	839	1	401	1263	7.9	193.6	No hits found
17058	0	32	4	545	581	6.6	65.8	gij2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
17085	52	2317	4	1666	4039	9.2	201.0	gij74763772 sp O44249.3 PRP1_MANSE proPO-p1
17102	16	933	1	330	1280	12.1	159.3	gij2738863 gb AAB94557.1  hemocyte protease-1 [Manduca sexta]
17159	33	1207	0	424	1664	7.6	204.7	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17174	21	742	0	341	1104	7.3	164.6	No hits found
17252	8	648	2	305	963	16.8	73.6	No hits found
17315	51	2439	9	1676	4175	9.9	89.9	gij74763772 sp O44249.3 PRP1_MANSE proPO-p1
17330	24	1162	2	729	1917	10.0	175.9	gij114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
17353	10	429	3	255	697	8.9	41.0	No hits found
17417	36	1458	9	950	2453	8.4	51.0	gij75038472 sp Q25519.3 PRP2_MANSE proPO-p2
17420	34	1330	1	774	2139	8.1	373.6	gij74763772 sp O44249.3 PRP1_MANSE proPO-p1
17421	24	1184	0	476	1684	10.2	229.8	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17469	10	695	1	510	1216	14.4	246.2	No hits found
17471	23	1173	0	491	1687	10.6	237.0	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17491	10	927	0	255	1192	19.2	123.1	No hits found
17537	0	0	1	320	321	0.0	154.5	No hits found
17554	8	372	0	316	696	9.6	152.5	No hits found
17562	25	1023	6	831	1885	8.5	66.9	gij74763772 sp O44249.3 PRP1_MANSE proPO-p1
17568	0	0	0	400	400	0.0	193.1	No hits found
17582	31	1551	4	544	2130	10.4	65.6	No hits found
17612	13	895	2	739	1649	14.3	178.4	gij74763772 sp O44249.3 PRP1_MANSE proPO-p1
17629	21	1086	4	677	1788	10.7	81.7	gij74763772 sp O44249.3 PRP1_MANSE proPO-p1
17650	12	668	2	451	1133	11.5	108.8	No hits found
17700	19	549	1	189	758	6.0	91.2	gij217262 dbj BAA03124.1  lectin [Bombyx mori]
17732	20	1241	3	447	1711	12.9	71.9	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17751	0	24	1	269	294	5.0	129.8	gij2149091 gb AAB58491.1  serpin-2 [Manduca sexta]
17769	21	1312	2	476	1811	13.0	114.9	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
17829	12	612	0	397	1021	10.6	191.6	No hits found
17958	25	1323	3	940	2291	11.0	151.2	gij75038472 sp Q25519.3 PRP2_MANSE proPO-p2
18004	49	1944	9	1436	3438	8.2	77.0	gij75038472 sp Q25519.3 PRP2_MANSE proPO-p2
18032	22	1216	0	441	1679	11.5	212.9	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18045	19	867	2	282	1170	9.5	68.1	gij156545430 ref XP_001606650.1  ~ CG7002-PA [Nasonia vitripennis]
18065	21	905	4	712	1642	8.9	85.9	gij74763772 sp O44249.3 PRP1_MANSE proPO-p1
18067	18	987	2	352	1359	11.4	85.0	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18073	8	500	0	217	725	13.0	104.7	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18089	10	759	0	228	997	15.7	110.1	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18097	22	960	0	348	1330	9.0	168.0	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18235	22	992	2	328	1344	9.3	79.2	No hits found
18261	11	790	1	308	1110	14.9	148.7	No hits found
18284	19	1069	5	646	1739	11.7	62.4	No hits found
18286	29	1294	1	404	1728	9.2	195.0	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18304	18	669	0	291	978	7.7	140.5	No hits found
18325	22	1278	2	470	1772	12.0	113.4	No hits found
18326	11	484	0	213	708	9.1	102.8	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18418	3	308	1	181	493	21.3	87.4	No hits found
18463	24	1035	1	636	1696	8.9	307.0	gij74763772 sp O44249.3 PRP1_MANSE proPO-p1
18480	13	574	0	201	788	9.2	97.0	No hits found
18516	56	2042	7	1293	3398	7.6	89.2	gij75038472 sp Q25519.3 PRP2_MANSE proPO-p2
18551	16	928	2	283	1229	12.0	68.3	gij910905448 ref XP_971239.1  ~ hemolectin CG7002-PA [Tribolium castaneum]
18719	10	475	1	140	626	9.8	67.6	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18721	15	456	0	212	683	6.3	102.3	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18766	20	895	1	665	1581	9.3	321.0	No hits found
18794	15	527	0	284	826	7.3	137.1	gij162462371 ref NP_001104817.1  lectin precursor [Bombyx mori]
18811	36	1830	11	1292	3169	10.5	56.7	gij75038472 sp Q25519.3 PRP2_MANSE proPO-p2
18816	9	851	1	259	1120	19.6	125.0	No hits found
18860	24	705	1	385	1115	6.1	185.8	gij114050871 ref NP_001040411.1  carboxylesterase [Bombyx mori]
18887	20	1028	2	575	1625	10.7	138.8	gij74763772 sp O44249.3 PRP1_MANSE proPO-p1

\* RA and ARN are calculated using original read numbers as described in Section 2.3. Listed here are contigs with  $RA_{IH/IF} > 40$ ,  $RA_{CH/CF} > 40$ ,  $ARN_{IH} > 80$  when  $RN_{IF} = 0$ , or  $ARN_{CH} > 80$  when  $RN_{CF} = 0$ .  $RA_{IF/CF}$  and  $RA_{IH/CH}$  values are shown in red if they are greater than 40, whereas  $ARN_{CH}$  and  $ARN_{IH}$  values are shown in blue if they are higher than 80. In the columns of RA or ARN, cells shaded green and orange represent down- and up-regulated gene expression, respectively.

**Table S4. A complete list of 250 FB CIFH contigs with RA<sub>CF/CH</sub> or IF/IH >100 (or ARN<sub>CF</sub> or IF >200)**

CIFH contig #	Original read #					RA or ARN		BLAST results
	CF	CH	IF	IH	Total	CF/CH	IF/IH	
00051	291	1	329	0	621	1403.9	681.6	gi 183979376 dbj BAG30740.1  muscle myosin heavy chain [Papilio xuthus]
00153	944	1	1116	0	2061	4554.1	2312.0	gi 2498144 sp Q25490.1 APLP_MANSE apolipoproteins containing apoLp-2 and -1
00194	37	0	81	1	119	178.5	167.8	gi 48476133 gb AAT44358.1  calcium-activated potassium channel $\alpha$ subunit [Manduca sexta]
00285	185	19	424	4	632	47.0	219.6	gi 73921301 gb AAG42021.2 AF327882_1 JHE precursor [Manduca sexta]
00409	168	0	216	0	384	810.5	447.5	gi 110750043 ref XP_394261.3  plexin A CG11081-PA, isoform A [Apis mellifera]
00414	58	1	50	0	109	279.8	103.6	gi 195382713 ref XP_002050074.1  GJ21937 [Drosophila virilis]
00423	149	0	220	0	369	718.8	455.8	gi 158295580 ref XP_316291.4  AGAP006225-PA [Anopheles gambiae]
00465	134	1	230	0	365	646.4	476.5	gi 149755131 ref XP_001491560.1  ~hemicentin 1 [Equus caballus]
00535	67	1	100	0	168	323.2	207.2	gi 242015135 ref XP_002428229.1  thrombospondin-3 precursor [Pediculus humanus corporis]
00575	3	0	259	5	267	14.5	107.3	gi 154240658 dbj BAF74637.1  peptidoglycan recognition protein-D [Samia cynthiaricini]
00609	324	0	762	0	1086	1563.1	1578.6	gi 225542786 gb ACN91276.1  dentin sialoprotein precursor [Bos taurus]
00737	2	4	131	2	139	2.4	135.7	gi 198466442 ref XP_002135189.1  GA23919 [Drosophila pseudoobscura]
00748	131	4	118	2	255	158.0	122.2	gi 29346557 ref NP_810060.1  glycine dehydrogenase [Bacteroides thetaiotaomicron]
00766	45	0	74	1	120	217.1	153.3	gi 158293377 ref XP_314728.3  AGAP008632-PA [Anopheles gambiae]
00773	49	12	93	1	155	19.7	192.7	gi 157103945 ref XP_001648193.1  dihydropyrimidine dehydrogenase [Aedes aegypti]
00785	120	2	139	2	263	289.5	144.0	gi 193795848 gb ACF21977.1  paramyosin [Bombyx mandarina]
00859	113	4	497	1	615	136.3	1029.6	gi 73921301 gb AAG42021.2 AF327882_1 JHE precursor [Manduca sexta]
00884	39	1	23	0	63	188.1	47.6	gi 156553304 ref XP_001599652.1  ~ GA21752-PA [Nasonia vitripennis]
00960	52	2	99	1	154	125.4	205.1	gi 157107996 ref XP_001650030.1  sarcosine dehydrogenase [Aedes aegypti]
01095	64	0	99	1	164	308.8	205.1	gi 169639235 gb ACA60733.1  venom acid phosphatase [Pteromalus puparum]
01097	134	2	436	5	577	323.2	180.7	gi 55139125 gb AAV41236.1  immunlectin-3 [Manduca sexta]
01127	41	1	52	1	95	197.8	107.7	gi 189491898 gb ACE00761.1  adipokinetic hormone receptor [Manduca sexta]
01454	599	3	1337	3	1942	963.2	923.3	gi 91082539 ref XP_973726.1  inter- $\alpha$ (globulin) inhibitor H4 (kallikrein-sensitive) [T. castaneum]
01480	211	0	729	0	940	1017.9	1510.3	gi 183979392 dbj BAG30748.1  hypothetical protein [Papilio xuthus]
01601	60	1	79	0	140	289.5	163.7	gi 27005801 gb EFA02249.1  hypothetical TeasGA2_TC007912 [Tribolium castaneum]
01714	3	2	90	1	96	7.2	186.5	No hits found
01742	65	0	75	0	140	313.6	155.4	gi 283100192 gb ADB08386.1  sugar transporter 4 [Bombyx mori]
01743	27	0	112	0	139	130.3	232.0	gi 134252572 gb ABO65045.1  $\beta$ -hexosaminidase [Ostrinia furnacalis]
01870	184	0	323	0	507	887.7	699.2	gi 242010783 ref XP_002426138.1  conserved hypothetical protein [Pediculus humanus corporis]
01892	82	0	108	0	190	395.6	223.7	gi 158289807 ref XP_311448.4  AGAP1010734-PA [Anopheles gambiae]
01915	85	2	275	0	362	205.0	569.7	gi 110757936 ref XP_623940.2  ~ peroxidase precursor [Apis mellifera]
01956	127	0	99	0	226	612.7	205.1	gi 156551746 ref XP_001602035.1  ENSANGP0000015052 [Nasonia vitripennis]
01972	112	0	424	0	536	540.3	878.4	gi 1362206 sp P22297.1 TRF_MANSE transferrin precursor
02101	51	0	75	0	126	246.0	155.4	gi 186909546 gb ACC94296.1  glucose oxidase-like enzyme [Helicoverpa armigera]
02104	59	1	67	1	128	284.6	138.8	gi 91079628 ref XP_967731.1  ~AGAP002355-PA [Tribolium castaneum]
02137	101	0	24	0	125	487.2	49.7	gi 91084191 ref XP_967340.1  ~AGAP002557-PA [Tribolium castaneum]
02144	82	0	132	3	217	395.6	91.2	gi 62002223 gb AAx58711.1  pheromone-degrading enzyme 1 [Antheraea polyphemus]
02166	60	0	57	0	117	289.5	118.1	gi 193876254 gb ACF24761.1  lipid storage droplet protein 1 [Manduca sexta]
02184	53	2	111	1	167	127.8	230.0	gi 226342886 ref NP_001139705.1  serpin 13 [Bombyx mori]
02219	454	3	971	3	1431	730.1	670.5	gi 219815604 gb ACL36977.1  putative ecdysone oxidase [Helicoverpa zea]
02329	143	0	411	0	554	689.9	851.5	gi 112984054 ref NP_001037422.1  yellow 1 [Bombyx mori]
02337	65	2	124	6	197	156.8	42.8	gi 91079867 ref XP_967070.1  ~AGAP005945-PB [Tribolium castaneum]
02340	50	0	60	0	110	241.2	124.3	No hits found
02361	7	4	70	1	82	8.4	145.0	gi 56418425 gb AAV91020.1  hemolymph proteinase 22 [Manduca sexta]
02393	45	0	77	5	127	217.1	31.9	gi 156545523 ref XP_001607196.1  Dihydroxyacetone kinase2 homolog (yeast) [Nasonia vitripennis]
02394	28	1	23	0	52	135.1	47.6	gi 91077746 ref XP_966706.1  conserved hypotheticalprotein [Tribolium castaneum]
02405	124	0	125	1	250	598.2	259.0	gi 2498144 sp Q25490.1 APLP_MANSE apolipoproteins, containing apoLp-2 and 1
02406	263	1	401	0	665	1268.8	830.8	gi 2498144 sp Q25490.1 APLP_MANSE apolipoproteins, containing apoLp-2 and 1
02409	113	0	187	0	300	545.1	387.4	gi 109502352 gb ABE01157.2  carboxylesterase [Spodoptera litura]
02482	63	0	85	1	149	303.9	176.1	gi 66519258 ref XP_625210.1  ~CG6188-PA [Apis mellifera]
02562	138	1	546	0	685	665.7	1131.1	No hits found
02609	97	0	146	2	245	468.0	151.2	gi 156968285 gb ABU98614.1  alpha-amylase [Helicoverpa armigera]
02638	120	0	138	0	258	578.9	285.9	gi 41016826 sp Q27772.3 C1TC_SPOFR C-1-THF synthase, cytoplasmic
02651	24	0	124	0	148	115.8	256.9	gi 5326830 gb AAD42058.1 AF122899_1 plasmotocyte-spreading peptide precursor [Manduca sexta]
02669	2	0	158	0	160	9.6	327.3	No hits found
02800	28	0	97	0	125	135.1	201.0	gi 260765449 gb ACX49762.1  $\beta$ -fructofuranosidase 1 [Manduca sexta]
02837	148	0	319	0	467	714.0	660.9	No hits found
02847	33	0	103	0	136	159.2	213.4	gi 114051702 ref NP_001040423.1  zinc-containing alcohol dehydrogenase [Bombyx mori]
02931	84	0	257	0	341	405.2	532.4	gi 1658003 gb AAB18243.1  microsomal epoxide hydrolase [Trichoplusia ni]
02947	518	21	981	56	1576	119.0	36.3	gi 259493819 gb ACW82749.1  hemocyte aggregation inhibitor protein precursor [Manduca sexta]
02979	49	0	92	4	145	236.4	47.6	gi 52782757 sp Q9NJ98.1 BGRP1_MANSE $\beta$ -1,3-glucan recognitionprotein 1 [BGRP-1
02985	3	0	158	0	161	14.5	327.3	gi 56418466 gb AAV91027.1  serine proteinase-like protein 4 [Manduca sexta]
03185	106	0	234	10	350	511.4	48.5	gi 157117489 ref XP_001658792.1  3-hydroxyacyl-coa dehydrogenase [Aedes aegypti]
03224	98	0	477	0	575	472.8	988.2	gi 226342906 ref NP_001139715.1  serpin 22 [Bombyx mori]
03226	222	0	663	0	885	1071.0	1373.5	gi 153791757 ref NP_001093275.1  myo-inositol oxygenase [Bombyx mori]
03395	22	1	24	0	47	106.1	49.7	gi 157908523 dbj BAF81491.1  juvenile hormone epoxide hydrolase [Bombyx mori]
03415	190	0	216	1	407	916.6	447.5	gi 2708688 gb AAB92583.1  acyl-CoA delta-9 desaturase [Trichoplusia ni]
03434	1	0	387	0	388	4.8	801.7	gi 189234566 ref XP_001815977.1  Kaz1-ORFB CG1220-PE [Tribolium castaneum]
03454	28	0	102	0	130	135.1	211.3	gi 6560669 gb AAF16712.1 AF117590_1 unknown [Manduca sexta]
03483	280	0	374	0	654	1350.8	774.8	gi 283558277 gb ADB27116.1  aliphatic nitrilase [Bombyx mori]
03712	49	2	157	5	213	118.2	65.1	gi 170779021 gb ACB36909.1  glutathione S-transferase theta [Antheraea pernyi]
03737	167	1	197	0	365	805.6	408.1	gi 56462300 gb AAV91433.1  putative serine protease-like protein 2 [Lonomia obliqua]
03748	60	0	45	0	105	289.5	93.2	gi 2498144 sp Q25490.1 APLP_MANSE apolipoproteins, containing apoLp-2 and apoLp-1
03776	109	5	579	31	724	105.2	38.7	gi 112983872 ref NP_001036857.1  serpin-like protein (SEP-LP) [Bombyx mori]
04012	122	2	528	10	662	294.3	109.4	gi 27733411 gb AAO21503.1 AF413062_1 leureptin, LPS binding [Manduca sexta]
04378	4	0	62	1	67	19.3	128.4	No hits found
04388	103	0	172	0	275	496.9	356.3	gi 1658003 gb AAB18243.1  microsomal epoxide hydrolase [Trichoplusia ni]
04413	69	1	133	1	204	332.9	275.5	gi 194743582 ref XP_001954279.1  GF18195 [Drosophila ananassae]
04424	72	0	64	0	136	347.3	132.6	gi 114052020 ref NP_001040445.1  tropomyosin 1 [Bombyx mori]
04430	74	0	68	0	142	357.0	140.9	gi 114052573 ref NP_001040481.1  phosphoribosyl pyrophosphate synthetase [Bombyx mori]
04498	46	0	115	0	161	221.9	238.2	gi 90025232 gb ABD85119.1  juvenile hormone epoxide hydrolase [Spodoptera exigua]
04504	53	0	135	0	188	255.7	279.7	gi 7239259 gb AAF43151.1 AF226857_1 hemolymph JHBP precursor [Manduca sexta]
04510	135	2	182	0	319	325.6	377.0	gi 2498144 sp Q25490.1 APLP_MANSE apolipoproteins, containing apoLp-2 and apoLp-1
04720	26	1	1025	0	1052	125.4	2123.5	No hits found
04722	408	0	681	0	1089	1968.3	1410.8	gi 116791778 gb ABK26104.1  unknown [Picea sitchensis]
04781	56	0	237	0	293	270.2	491.0	gi 118359591 ref XP_001013035.1  PHD-finger family protein [Tetrahymena thermophila]
04786	61	0	62	0	123	294.3	128.4	gi 219686082 emb CAW30924.1  putative aldo-ketose reductase 1 [Papilio dardanus]
04791	144	0	200	0	344	694.7	414.3	gi 116788175 gb ABK24783.1  unknown [Picea sitchensis]



04806	518	1	372	0	891	2499.0	770.7	gi 157122933 ref XP_001659963.1  actin [Aedes aegypti]
04808	0	0	426	2	428	0.0	441.3	gi 237861314 gb AAV41237.2  immunlectin-4 [Manduca sexta]
04830	12	0	124	0	136	57.9	256.9	gi 169646838 ref NP_001112375.1  heat shock protein 25.4 [Bombyx mori]
04887	10	0	109	0	119	48.2	225.8	gi 169646838 ref NP_001112375.1  heat shock protein 25.4 [Bombyx mori]
04994	170	0	180	0	350	820.1	372.9	gi 116791778 gb ABK26104.1  unknown [Picea sitchensis]
05038	41	0	105	1	147	197.8	217.5	gi 110759694 ref XP_394781.3  ~rTS beta protein [Apis mellifera]
05136	1074	11	1041	37	2163	471.0	58.3	gi 114051966 ref NP_001040198.1  mitochondrial aldehyde dehydrogenase [Bombyx mori]
05324	68	0	88	0	156	328.0	182.3	gi 225346695 gb ACN86370.1  tropoin 1 transcript variant C [Bombyx mandarina]
05348	50	0	67	0	117	241.2	138.8	gi 189234391 ref XP_974849.2  ~GA16498-PA [Tribolium castaneum]
05417	73	0	198	0	271	352.2	410.2	gi 260907784 gb ACX53694.1  alcohol dehydrogenase [Heliothis virescens]
05461	43	0	35	0	78	207.4	72.5	gi 260907784 gb ACX53694.1  alcohol dehydrogenase [Heliothis virescens]
05532	0	0	110	0	110	0.0	227.9	No hits found
05717	37	2	522	6	567	89.2	180.2	gi 169646838 ref NP_001112375.1  heat shock protein 25.4 [Bombyx mori]
05735	13	0	102	0	115	62.7	211.3	No hits found
05832	60	0	70	0	130	289.5	145.0	gi 110759694 ref XP_394781.3  ~rTS beta protein [Apis mellifera]
05984	89	0	97	0	186	429.4	201.0	gi 56462260 gb AAV91413.1  myosin 3 light chain [Lonomia obliqua]
06040	21	1	21	0	43	101.3	43.5	No hits found
06175	11	0	52	1	64	53.1	107.7	gi 170070451 ref XP_001869584.1  conserved hypothetical protein [Culex quinquefasciatus]
06215	29	1	108	8	146	139.9	28.0	gi 112983872 ref NP_001036857.1  serpin-like protein (SEP-LP) [Bombyx mori]
06227	251	1	715	0	967	1210.9	1481.3	gi 124527 sp Q00630.1 ICYB_MANSE insecticyanin-B (INS-b), blue biliprotein
06251	66	2	57	7	132	159.2	16.9	gi 158289206 ref XP_310956.4  AGAP000179-PA [Anopheles gambiae]
06394	51	0	228	0	279	246.0	472.3	gi 110611262 gb ABG77980.1  Ala-glyoxylate transaminase 1 [Glossinamorsitans morsitans]
06531	45	2	199	11	257	108.5	37.5	gi 112983872 ref NP_001036857.1  serpin-like protein (SEP-LP) [Bombyx mori]
06588	60	0	75	0	135	289.5	155.4	gi 56462256 gb AAV91411.1  myosin 1 light chain [Lonomia obliqua]
06597	60	0	200	0	260	289.5	414.3	gi 56462320 gb AAV91443.1  putative secreted peptide 30 [Lonomia obliqua]
06611	22	1	23	5	51	106.1	9.5	No hits found
06732	115	1	244	0	360	554.8	505.5	gi 25090512 sp Q25513.1 HGLY_MANSE 27 kDa hemolymph glycoprotein
06789	111	0	416	0	527	535.5	861.8	gi 156968291 gb ABU98617.1  unknown [Helicoverpa armigera]
06831	88	0	76	0	164	424.5	157.4	gi 2498144 sp Q25490.1 APLP_MANSE apolipophorins, containing apoLp-2 and -1
06834	142	0	231	0	373	685.0	478.6	gi 2498144 sp Q25490.1 APLP_MANSE apolipophorins, containing apoLp-2 and -1
06876	48	0	44	0	92	231.6	91.2	gi 156968291 gb ABU98617.1  unknown [Helicoverpa armigera]
06975	78	1	166	2	247	376.3	172.0	gi 189237651 ref XP_001813448.1  N-acetyl neuraminylase [Tribolium castaneum]
07090	62	0	169	0	231	299.1	350.1	No hits found
07116	1	4	902	3	910	1.2	622.9	gi 171262319 gb ACB45566.1  lebecin-like protein [Antheraea pernyi]
07389	133	0	511	0	644	641.6	1058.6	gi 260907784 gb ACX53694.1  alcohol dehydrogenase [Heliothis virescens]
07432	24	0	173	0	197	115.8	358.4	gi 260907784 gb ACX53694.1  alcohol dehydrogenase [Heliothis virescens]
07536	7	0	383	2	392	33.8	396.7	No hits found
07565	24	1	14	0	39	115.8	29.0	gi 7862150 gb AAF70499.1 AF255341_1 3-dehydroecdysone 3 $\alpha$ -reductase [Spodoptera littoralis]
07608	78	0	27	0	105	376.3	55.9	gi 159526 gb AAA29320.1  Met-rich storage protein 1 [Manduca sexta]
07629	65	0	82	0	147	313.6	169.9	gi 77415676 emb CAJ01507.1  hypothetical protein [Manduca sexta]
07639	651	0	1237	14	1902	3140.6	183.0	gi 134436 sp P14754.1 SERA_MANSE alaserpin serpin-1
07658	121	0	68	0	189	583.7	140.9	gi 41016826 sp Q27772.3 CITC_SPOFR C-1-tetrahydrofolate synthase cytoplasmic
07671	227	3	450	3	683	365.0	310.8	gi 195164814 ref XP_002023241.1  GL21066 [Drosophila persimilis]
07770	79	0	116	0	195	381.1	240.3	gi 2498144 sp Q25490.1 APLP_MANSE apolipophorins containing apoLp-2 and -1
07975	121	1	1930	0	2052	583.7	3998.4	gi 159526 gb AAA29320.1  Met-rich storage protein 1 [Manduca sexta]
08076	18	1	53	1	73	86.8	109.8	gi 226342878 ref NP_001139701.1  serpin 7 [Bombyx mori]
08141	84	0	845	0	929	405.2	1750.6	gi 159526 gb AAA29320.1  Met-rich storage protein 1 [Manduca sexta]
08224	1932	1	2695	0	4628	9320.4	5583.2	gi 1168527 sp P14297.2 ARYB_MANSE arylphorin subunit $\beta$ precursor
08453	45	1	199	1	246	217.1	412.3	gi 2773341 gb AAO21503.1 AF413062_1 leureptin, LPS binding [Manduca sexta]
08467	0	0	113	0	113	0.0	234.1	gi 112983866 ref NP_001036858.1  T7 lysozyme-like protein 1 [Bombyx mori]
08500	138	0	407	0	545	665.7	843.2	gi 156406857 ref XP_001641261.1  predicted protein [Nematostella vectensis]
08721	85	1	192	1	279	410.1	397.8	No hits found
08821	246	0	436	2	684	1186.8	451.6	gi 112983550 ref NP_001036879.1  fibrillin-like protein [Bombyx mori]
08845	27	0	130	0	157	130.3	269.3	gi 195029763 ref XP_001987741.1  GH19797 [Drosophila grimshawi]
08854	220	3	3742	0	3965	353.8	7752.3	gi 5869985 emb CAB55603.1  moderately Met-rich storage protein [Spodoptera litura]
09928	30	0	106	0	136	144.7	219.6	gi 242090851 ref XP_002441258.1  hypothetical SORBIDRAFT_09g023310 [Sorghum bicolor]
09986	23	1	31	3	58	111.0	21.4	No hits found
10071	11	1	1117	0	1129	53.1	2314.1	gi 228382 prf I1803340A Met-rich storage protein SPIA
10244	78	0	108	0	186	376.3	223.7	No hits found
10326	284	4	299	11	598	342.5	56.3	gi 56462160 gb AAV91363.1  hypothetical protein 10 [Lonomia obliqua]
10340	21	5	62	1	89	20.3	128.4	No hits found
10382	76	0	744	0	820	366.6	1541.3	gi 136206 sp P22297.1 TRF_MANSE transferrin precursor
10791	1	0	1081	1	1083	4.8	2239.5	gi 4262357 gb AAD14591.1  scolexin A [Manduca sexta]
10792	0	0	333	0	333	0.0	689.9	gi 4262357 gb AAD14591.1  scolexin A [Manduca sexta]
10853	0	0	113	1	114	0.0	234.1	gi 171262319 gb ACB45566.1  lebecin-like protein [Antheraea pernyi]
11027	59	0	694	0	753	284.6	1437.8	gi 136206 sp P22297.1 TRF_MANSE transferrin precursor
11039	1670	0	2578	0	4248	8056.5	5340.8	gi 114240 sp P14296.1 ARYA_MANSE arylphorin subunit $\alpha$ precursor
11830	26	1	33	0	60	125.4	68.4	gi 260780799 ref XP_002585527.1  hypothetical BRAFLDRAFT_89257 [B. floridae]
11922	354	6	420	2	782	284.6	435.1	gi 114058 sp P13276.1 APL3_MANSE apolipophorin-3 (apoLp-III)
12005	154	0	2177	0	2331	742.9	4510.1	gi 2625150 gb AAB86646.1  moderately Met-rich hexamerin precursor [Hyalophora cecropia]
12151	0	0	153	0	153	0.0	317.0	gi 116084 sp P14665.1 CECS_MANSE bactericidin B-5P, cecropin-like precursor
12749	135	0	1462	0	1597	651.3	3028.8	gi 159530 gb AAA29322.1  Met-rich storage protein 3 [Manduca sexta]
13093	547	6	632	1	1186	439.8	1309.3	gi 114058 sp P13276.1 APL3_MANSE apolipophorin-3 apoLp-III precursor
13238	3	1	524	0	528	14.5	1085.6	No hits found
13302	112	2	144	0	258	270.2	298.3	No hits found
13563	0	0	657	0	657	0.0	1361.1	gi 110347786 gb ABG72695.1  attacin-like protein [Antheraea mylitta]
13916	1	0	741	0	742	4.8	1535.1	gi 219958086 gb ACL68097.1  lebecin-related protein precursor [Manduca sexta]
13994	57	0	62	0	119	275.0	128.4	gi 112983654 ref NP_001036872.1  bombyrin [Bombyx mori]
14087	139	0	153	0	292	670.6	317.0	gi 2498144 sp Q25490.1 APLP_MANSE apolipophorins containing apoLp-2 and -1
14173	45	0	32	0	77	217.1	66.3	gi 153792114 ref NP_001093267.1  phosphatidylethanolamine binding protein [Bombyx mori]
14375	64	0	58	0	122	308.8	120.2	gi 400673 sp P31420 OMB_MANSE ommochrome-binding protein precursor (OBP, YCP)
14380	0	0	106	0	106	0.0	219.6	gi 67906420 gb AAV82587.1  attacin-1 [Manduca sexta]
14528	29	2	62	1	94	70.0	128.4	gi 226342878 ref NP_001139701.1  serpin 7 [Bombyx mori]
14589	95	0	118	0	213	458.3	244.5	gi 2498144 sp Q25490.1 APLP_MANSE apolipophorins containing apoLp-2 and -1
14637	28	1	46	0	75	135.1	95.3	gi 189237651 ref XP_001813448.1  N-acetyl neuraminylase [Tribolium castaneum]
14641	0	0	157	0	157	0.0	325.3	gi 67906420 gb AAV82587.1  attacin-1 [Manduca sexta]
14659	202	0	374	0	576	974.5	774.8	gi 400673 sp P31420 OMB_MANSE ommochrome-binding protein precursor (OBP, YCP)
14688	70	2	1129	0	1201	168.8	2338.9	gi 159526 gb AAA29320.1  Met-rich storage protein 1 [Manduca sexta]
14700	0	0	183	2	185	0.0	189.6	gi 260765453 gb ACX49764.1  peptidoglycan recognition protein 2 [Manduca sexta]
14732	43	0	44	0	87	207.4	91.2	No hits found
14752	0	0	118	2	120	0.0	122.2	gi 260765453 gb ACX49764.1  peptidoglycan recognition protein 2 [Manduca sexta]
14937	13	0	164	0	177	62.7	339.8	gi 136206 sp P22297.1 TRF_MANSE transferrin precursor
15089	271	0	194	0	465	1307.4	401.9	gi 158293921 ref XP_315269.4  AGAP011516-PA [Anopheles gambiae]



15324	82	2	1492	0	1576	197.8	3091.0	gi 5869985 emb CAB55603.1  moderately Met-rich storage protein [Spodoptera litura]
15475	9	0	110	0	119	43.4	227.9	No hits found
15524	43	0	165	0	208	207.4	341.8	No hits found
15639	10	0	109	0	119	48.2	225.8	gi 148298818 ref NP_001091784.1  multi-binding protein [Bombyx mori]
15796	42	0	46	1	89	202.6	95.3	gi 91079867 ref XP_967070.1  ~AGAP005945-PB [Tribolium castaneum]
15850	43	0	134	0	177	207.4	277.6	No hits found
15852	0	0	134	0	134	0.0	277.6	No hits found
15891	160	0	379	4	543	771.9	196.3	gi 134433 sp P14754.1 SERA_MANSE alaserpin serpin-1
16000	61	0	138	0	199	294.3	285.9	gi 109458629 ref XP_001073545.1 hypothetical protein [Rattus norvegicus]
16150	0	1	145	3	149	0.0	100.1	gi 67906420 gb AAY82587.1  attacin-1 [Manduca sexta]
16171	3015	3	4190	0	7208	4848.4	8680.4	gi 114240 sp P14296.1 ARYA_MANSE arylphorin subunit $\alpha$ precursor
16222	434	1	993	0	1428	2093.7	2057.2	No hits found
16223	22	1	47	2	72	106.1	48.7	gi 242003442 ref XP_002422733.1  bifunctional purine biosynthesis protein [Pediculus corporis]
16281	266	0	405	0	671	1283.2	839.0	gi 134103857 gb ABO60878.1  cationic peptide CP8 precursor [Manduca sexta]
16383	0	0	98	0	98	0.0	203.0	No hits found
16472	61	0	177	0	238	294.3	366.7	No hits found
16473	484	2	1069	0	1555	1167.5	2214.6	No hits found
16474	63	0	111	0	174	303.9	230.0	gi 1168527 sp P14297.2 ARYB_MANSE arylphorin subunit $\beta$ precursor
16501	293	0	252	0	545	1413.5	522.1	gi 1168527 sp P14297.2 ARYB_MANSE arylphorin subunit $\beta$ precursor
16510	23	0	108	0	131	111.0	223.7	No hits found
16519	354	1	833	0	1188	1707.8	1725.7	No hits found
16520	1	0	664	1	666	4.8	1375.6	gi 4262357 gb AAD14591.1  scolexin A [Manduca sexta]
16537	2829	4	3897	0	6730	3411.9	8073.4	gi 114240 sp P14296.1 ARYA_MANSE arylphorin subunit $\alpha$ precursor
16606	8	0	164	0	172	38.6	339.8	gi 136206 sp P22297.1 TRF_MANSE transferrin precursor
16664	2118	1	2768	0	4887	10217.7	5734.5	gi 1168527 sp P14297.2 ARYB_MANSE arylphorin subunit $\beta$ precursor
16715	43	0	73	0	116	207.4	151.2	gi 1168527 sp P14297.2 ARYB_MANSE arylphorin subunit $\beta$ precursor
16754	2	0	147	0	149	9.6	304.5	No hits found
16764	2956	6	4024	0	6986	2376.7	8336.5	gi 1168527 sp P14297.2 ARYB_MANSE arylphorin subunit $\beta$ precursor
16782	1	0	228	0	229	4.8	472.3	No hits found
16814	2401	2	3330	0	5733	5791.5	6898.8	gi 114240 sp P14296.1 ARYA_MANSE arylphorin subunit $\alpha$ precursor
16849	134	0	541	0	675	646.4	1120.8	gi 114051738 ref NP_001040426.1  alcohol dehydrogenase [Bombyx mori]
16977	19	0	101	0	120	91.7	209.2	No hits found
17123	176	2	461	0	639	424.5	955.1	No hits found
17193	27	0	233	0	260	130.3	482.7	gi 136206 sp P22297.1 TRF_MANSE transferrin precursor
17199	42	2	33	4	81	101.3	17.1	gi 3108073 gb AAC15763.1  putative multifunctional protein ADE2 [Manduca sexta]
17202	0	0	216	1	217	0.0	447.5	No hits found
17206	3	0	136	0	139	14.5	281.8	gi 136206 sp P22297.1 TRF_MANSE transferrin precursor
17261	46	1	91	3	141	221.9	62.8	No hits found
17301	1	0	272	0	273	4.8	563.5	gi 219958086 gb ACL68097.1  lebecin-related protein precursor [Manduca sexta]
17312	92	0	136	0	228	443.8	281.8	gi 134103857 gb ABO60878.1  cationic peptide CP8 precursor [Manduca sexta]
17316	0	0	98	0	98	0.0	203.0	No hits found
17350	0	0	205	0	205	0.0	424.7	gi 29469969 gb AAO74640.1  antimicrobial protein attacin 2 [Manduca sexta]
17395	58	0	491	0	549	279.8	1017.2	gi 136206 sp P22297.1 TRF_MANSE transferrin precursor
17434	1	0	314	0	315	4.8	650.5	gi 219958086 gb ACL68097.1  lebecin-related protein precursor [Manduca sexta]
17470	160	2	387	0	549	385.9	801.7	No hits found
17492	2020	2	2966	0	4988	4872.5	6144.7	gi 114240 sp P14296.1 ARYA_MANSE arylphorin subunit $\alpha$ precursor
17494	39	0	131	0	170	188.1	271.4	gi 400673 sp P31420 OMB_MANSE ommochrome-binding protein precursor (OBP, YCP)
17516	4	0	126	0	130	19.3	261.0	gi 228382 prf 1803340A Met-rich storage protein SP1A
17611	29	1	19	0	49	139.9	39.4	No hits found
17770	114	0	391	0	505	550.0	810.0	No hits found
17813	95	0	118	0	213	458.3	244.5	gi 400673 sp P31420 OMB_MANSE ommochrome-binding protein precursor (OBP, YCP)
17814	21	0	74	1	96	101.3	153.3	gi 112983872 ref NP_001036857.1  Serpin-like protein (SEP-LP) [Bombyx mori]
17975	67	0	197	0	264	323.2	408.1	No hits found
18096	59	0	112	0	171	284.6	232.0	No hits found
18234	12	0	108	0	120	57.9	223.7	gi 136206 sp P22297.1 TRF_MANSE transferrin precursor
18240	838	0	1269	0	2107	4042.7	2629.0	gi 114240 sp P14296.1 ARYA_MANSE arylphorin subunit $\alpha$ precursor
18257	939	0	1305	0	2244	4530.0	2703.6	gi 114240 sp P14296.1 ARYA_MANSE arylphorin subunit $\alpha$ precursor
18308	15	0	169	0	184	72.4	350.1	gi 136206 sp P22297.1 TRF_MANSE transferrin precursor
18432	67	0	208	0	275	323.2	430.9	No hits found
18556	250	0	301	0	551	1206.1	623.6	gi 114240 sp P14296.1 ARYA_MANSE arylphorin subunit $\alpha$ precursor
18669	0	0	285	0	285	0.0	590.4	gi 4262357 gb AAD14591.1  scolexin A [Manduca sexta]
18670	0	0	139	0	139	0.0	288.0	gi 4262357 gb AAD14591.1  scolexin A [Manduca sexta]
18695	123	0	170	0	293	593.4	352.2	gi 1168527 sp P14297.2 ARYB_MANSE arylphorin subunit $\beta$ precursor
18768	125	0	294	0	419	603.0	609.1	No hits found
18797	9	0	549	0	558	43.4	1137.4	gi 39843367 gb AAR32136.1  VHDL receptor [Helicoverpa zea]
18838	90	0	171	0	261	434.2	354.3	No hits found
18908	196	0	300	0	496	945.6	621.5	No hits found
18963	0	0	254	0	254	0.0	526.2	gi 4262357 gb AAD14591.1  scolexin A [Manduca sexta]
18971	95	0	222	0	317	458.3	459.9	No hits found

\* RA and ARN are calculated using original read numbers as described in Section 2.3. Listed here are contigs with  $RA_{IF/TH} > 100$ ,  $RA_{CF/CH} > 100$ ,  $ARN_{IF} > 200$  when  $RN_{IH} = 0$ , or  $ARN_{CF} > 200$  when  $RN_{CH} = 0$ .  $RA_{IF/CF}$  and  $RA_{IH/CH}$  values are shown in red if they are greater than 100, whereas  $ARN_{CF}$  and  $ARN_{CH}$  values are shown in blue if they are higher than 200. In the columns of RA or ARN, cells shaded green and orange represent down- and up-regulated gene expression, respectively.