Table S2. Relative expression of honeybee immune genes in highly infested colonies.

Feature ID	Gene name	Gene family/ pathway	Average RPKM LIC ± st. dev.	HIC1	HIC2	HIC3	HIC4	HIC5
GB18323	Abaecin	AMP	4094.42 ± 1422.35	0.67	3.63	3.06	1.70	0.94
GB17782	Apidaecin		76.12 ± 17.92	0.70	8.94	5.57	3.64	1.85
GB19468	Apisimin		18052.95 ± 11001.49	4.81	2.30	1.09	3.44	0.39
GB10036	Defensin-2		0.33 ± 0.37	0.00	51.32	12.45	0.00	4.39
GB17538	Hymenoptaecin		697.70 ± 429.50	0.46	15.63	23.47	3.66	0.93
GB16711	Hemolectin	Cellular response	8.26 ± 1.35	0.98	1.11	0.85	0.71	0.63
GB20003	Hemomucin		168.70 ± 33.33	0.82	0.93	1.02	0.76	0.93
GB11717	CTL1	C-lectin domain	5.10 ± 0.92	0.80	1.08	1.04	0.91	1.49
GB11810	CTL10		14.71 ± 1.55	1.24	1.20	1.09	0.86	0.83
GB19013	CTL11		1.79 ± 1.05	0.67	0.52	0.34	0.35	0.69
GB13808	CTL12		4.77 ± 1.14	0.52	1.00	0.97	0.77	1.06
GB14265	CTL2		53.37 ± 8.97	0.48	0.88	2.22	0.73	0.97
GB18049	CTL3		1.89 ± 0.80	0.70	0.09	0.44	0.09	0.82
GB20122	CTL4		4.56 ± 2.12	0.80	0.48	0.83	0.79	1.33
GB17330	CTL5		5.53 ± 1.92	0.34	0.54	0.74	0.91	0.88
GB11792	CTL6		12.81 ± 1.92	1.17	0.90	1.00	0.77	0.97
GB14975	CTL7		89.23 ± 22.83	1.12	0.77	0.75	0.72	0.48
GB14382	CTL8		25.59 ± 2.81	0.75	0.75	0.82	0.70	0.70
GB15050	CTL9		5.04 ± 1.04	0.35	0.85	1.12	1.03	0.43
GB14645	Eater-like	EGF Family	14.64 ± 4.84	1.04	1.66	2.83	3.18	2.65
GB14962	laminin-EGF-like		47.99 ± 4.09	0.83	0.91	1.25	0.97	0.90
GB17018	Angiopoietin	Fibrinogen	4.90 ± 1.18	0.71	0.67	0.56	0.56	0.64
GB11902	Scabrous		9.91 ± 1.99	0.49	0.45	0.75	0.65	0.78
GB10026	Galectin-1	Galectin	162.84 ± 11.12	0.81	0.72	0.91	0.80	0.78
GB18324	Galectin-2		21.50 ± 1.74	0.82	0.82	0.89	0.72	0.74
GB19452	B-gluc1	GNBPs	491.72 ± 99.46	0.59	0.79	0.83	0.80	0.89
GB19961	B-gluc2		89.67 ± 21.32	1.04	2.17	2.09	1.36	0.89
GB30209	Dscam	IG superf. genes	4.21 ± 1.00	0.69	1.17	1.08	0.87	1.27
GB14642	IGFn3-1		40.74 ± 5.69	0.58	0.55	0.67	0.56	0.69
GB11807	IGFn3-10		8.88 ± 3.25	0.66	1.18	1.69	1.48	1.65
GB12490	IGFn3-11		58.53 ± 22.51	0.90	0.82	1.06	1.38	1.90
GB14520	IGFn3-12		31.03 ± 5.86	0.54	0.77	1.11	1.15	1.50
GB10469	IGFn3-13		63.79 ± 6.50	0.68	0.68	1.47	1.14	1.11
GB12933	IGFn3-14		1.28 ± 0.35	0.82	0.93	1.42	1.29	1.71
GB11918	IGFn3-16		0.18 ± 0.06	0.00	1.38	1.00	0.35	0.00
GB11358	IGFn3-2		34.09 ± 6.60	0.66	0.64	0.83	0.68	0.69
GB15987	IGFn3-3		0.93 ± 0.23	0.73	0.94	0.79	1.18	0.86
GB13261	IGFn3-5		3.02 ± 1.86	0.42	1.02	1.34	1.98	2.60
GB10912	IGFn3-6		0.77 ± 0.19	0.39	0.50	0.43	0.36	0.99
GB11846	IGFn3-7		24.17 ± 1.47	0.70	0.71	0.72	0.64	0.70
GB14317	IGFn3-8		4.76 ± 0.43	0.90	0.96	1.05	0.75	0.61
GB16060	IGFn3-9		0.39 ± 0.19	0.19	1.12	1.21	0.64	0.71

GB30331	DREDD-Casp8	IMD	1.97 ± 0.78	1.62	0.42	1.44	1.28	2.06
GB19498	dUbc13		95.49 ± 5.35	0.80	0.65	1.02	0.57	0.73
GB30399	FADD		10.60 ± 2.90	1.23	0.88	1.33	1.39	1.14
GB17106	IKKγ-kenny		75.26 ± 14.60	0.91	0.94	1.10	0.93	0.95
GB15273	IKK-ird5		28.14 ± 4.94	0.79	0.59	0.93	0.58	0.74
GB18606	Imd		43.07 ± 5.39	1.00	1.35	1.39	1.26	1.10
GB11057	lap2		35.78 ± 8.22	0.82	1.01	1.25	0.81	0.85
GB13742	Relish		2.70 ± 1.89	0.33	2.53	1.43	0.43	0.12
GB14664	Tak1		32.92 ± 3.47	0.70	0.67	0.80	0.77	0.84
GB12159	Domeless	JakSTAT	22.81 ± 4.14	0.68	1.09	1.35	0.73	0.60
GB18362	D-PIAS		23.64 ± 4.74	0.97	0.73	1.01	0.75	0.84
GB18949	SOCS		89.91 ± 10.51	0.70	0.72	0.85	0.74	0.76
GB18923	STAT92E		32.98 ± 2.34	0.82	0.77	1.00	0.75	0.68
GB17167	Hem	JNK	15.95 ± 2.04	0.59	0.63	0.90	0.57	0.68
GB12004	Jra		25.13 ± 5.53	0.69	0.78	1.31	0.80	0.50
GB19901	puckered		51.09 ± 13.61	0.56	1.12	2.45	1.57	1.44
GB10231	Lys-1	Lysozyme	1056.72 ± 138.79	1.19	1.37	1.76	1.70	0.90
GB15106	Lys-2		673.48 ± 110.06	0.84	0.97	1.09	1.12	1.22
GB19988	Lys-3		379.90 ± 23.72	1.41	1.31	0.92	1.22	0.88
GB16401	MAPK(basket)	MAPK	31.54 ± 6.66	1.05	1.13	1.66	1.18	1.01
GB13522	MAPKKK9		27.91 ± 3.00	0.69	0.71	0.94	0.59	0.82
GB11320	RIP1		14.08 ± 1.83	1.21	1.33	1.20	1.31	1.83
GB15645	NFAT	NFAT	23.34 ± 7.12	0.52	0.87	1.20	1.30	1.45
GB12883	NimA	Phagocytosis	1.50 ± 0.69	0.65	0.57	1.36	0.90	1.21
GB14645	NimC1		14.64 ± 4.84	1.04	1.66	2.83	3.18	2.65
GB12454	NimB		20.31 ± 6.07	0.98	1.11	2.74	3.98	3.44
GB13979	NimC2		13.93 ± 5.48	1.80	3.35	1.72	3.15	1.65
GB14962	Draper		47.99 ± 4.09	0.83	0.91	1.25	0.97	0.90
GB15371	PGRP-S1	PGRP	562.70 ± 104.22	0.96	1.05	0.89	1.29	0.94
GB19301	PGRP-S2		226.29 ± 52.86	1.08	8.59	8.43	2.25	1.33
GB17879	PGRP-S3		386.93 ± 96.51	1.11	1.22	1.02	0.90	1.12
GB18313	PPO	PPO	72.79 ± 16.51	0.98	0.66	0.53	0.71	0.71
GB18767	PPOAct		69.17 ± 17.29	0.89	1.12	0.90	1.48	1.54
GB11373	Rac	RAC1 protein	230.71 ± 27.37	0.75	0.67	0.91	0.83	0.71
GB13360	lox2-like	Scav. Receptor A	8.06 ± 2.83	1.51	1.57	1.34	1.44	1.36
GB10506	AmSCR-B1	Scav. Receptor B	1.88 ± 0.68	1.49	0.24	1.01	0.82	0.66
GB11743	AmSCR-B2		6.06 ± 1.92	0.92	0.94	0.44	1.11	0.78
GB12378	AmSCR-B3		52.23 ± 0.72	0.88	0.71	1.01	0.87	0.86
GB12830	AmSCR-B4		22.68 ± 4.65	1.04	1.12	1.95	0.82	0.77
GB13813	AmSCR-B5		24.11 ± 5.32	0.67	0.31	0.67	0.63	0.54
GB14314	AmSCR-B6		51.09 ± 11.04	0.74	0.98	1.23	1.45	1.59
GB15549	AmSCR-B7		16.66 ± 4.53	0.74	0.46	0.43	0.55	0.66
GB16388	AmSCR-B8		32.51 ± 7.86	1.14	1.13	0.74	0.75	0.92
GB19925	AmSCR-C	Scav. Receptor C	38.66 ± 11.25	0.83	0.94	0.73	1.32	1.38

GB16147	cSP1		102.44 ± 13.56	1.08	1.32	1.75	1.62	0.91
GB14044	cSP14		36.28 ± 3.58	0.86	1.11	2.08	1.30	1.03
GB14247	cSP2		639.15 ± 104.10	1.11	1.47	1.48	1.63	0.83
GB16220	cSP21		8.29 ± 2.26	0.37	0.49	0.85	0.50	1.22
GB19719	cSP25		0.39 ± 0.20	0.57	1.46	1.65	1.99	1.66
GB18450	cSP26		0.36 ± 0.14	0.29	0.38	1.83	1.16	1.40
GB11698	cSP3		738.36 ± 44.10	0.91	0.88	0.86	1.15	1.14
GB14309	cSP33		0.13 ± 0.09	0.00	0.56	0.54	0.00	0.00
GB14077	cSP6		0.23 ± 0.06	0.49	1.56	0.30	1.60	1.60
GB17145	cSP7		1.48 ± 1.17	1.06	1.06	0.63	1.09	1.11
GB14366	cSPH39		3.28 ± 0.42	0.72	0.75	0.61	0.75	1.05
GB11298	cSPH42		1373.25 ± 170.28	0.83	1.21	1.37	1.13	1.05
GB14001	cSPH50		59.84 ± 8.68	1.09	0.97	1.11	1.47	1.00
GB15254	cSPH55		2.46 ± 0.94	1.02	0.44	1.18	1.66	1.12
GB14654	SP11		5.99 ± 1.80	2.31	2.26	1.26	2.41	1.49
GB19856	SP12		7.40 ± 1.60	0.70	0.92	0.89	0.71	1.04
GB15640	SP13		90.24 ± 17.24	0.86	0.95	0.96	0.89	0.97
GB18178	SP15		1.97 ± 0.50	0.66	0.85	1.87	1.42	0.84
GB14603	SP17		3500.37 ± 541.87	1.22	1.32	1.54	1.62	1.19
GB10222	SP18		127.24 ± 45.87	1.08	1.28	2.37	1.23	1.41
GB19590	SP20		2.33 ± 0.38	0.78	0.85	0.84	0.83	1.65
GB13791	SP22		3960.69 ± 678.35	1.39	1.49	1.12	1.34	1.02
GB14233	SP24		11.29 ± 2.30	1.11	1.08	0.88	1.12	1.32
GB11588	SP27	Serine proteases	30.23 ± 14.82	3.95	6.16	3.08	17.22	0.72
GB14644	SP29		4.22 ± 1.86	0.48	0.47	0.23	0.97	0.89
GB11511	SP32		6.14 ± 2.34	0.39	1.04	1.33	0.72	1.20
GB11552	SP34		17.05 ± 16.70	0.04	0.03	0.04	0.21	1.21
GB16021	SP35		604.01 ± 338.92	0.76	1.64	2.81	1.35	1.00
GB19846	SP36		12697.01 ± 1876.48	0.75	0.85	0.97	1.10	0.83
GB16214	SP38		11.41 ± 2.49	1.07	1.38	1.20	1.38	1.20
GB10646	SP4		1.68 ± 0.55	1.57	2.10	1.70	1.71	0.80
GB13263	SP40		343.19 ± 123.57	1.43	0.61	0.68	0.98	0.75
GB15453	SP44		577.04 ± 38.36	0.91	1.30	1.24	1.36	1.13
GB17654	SP45		4.86 ± 1.49	0.70	0.90	0.56	0.77	0.88
GB16367	SP46		6.07 ± 1.53	0.54	0.62	0.91	0.77	0.91
GB14774	SP47		0.12 ± 0.17	3.69	0.00	4.61	4.87	12.20
GB12379	SP48		0.67 ± 0.23	1.22	0.52	2.28	1.60	0.00
GB15317	SP49		70.54 ± 11.47	1.22	1.43	1.59	0.86	0.78
GB12300	SP5		0.72 ± 0.30	0.88	0.76	0.73	1.16	1.29
GB18767	SP8		69.17 ± 17.29	0.89	1.12	0.90	1.48	1.54
GB17345	SPH19		1.81 ± 0.37	1.28	2.05	5.17	0.82	1.10
GB18944	SPH37		8.30 ± 1.81	0.63	1.23	0.78	1.15	0.67
GB13397	SPH51		1.67 ± 0.39	0.28	0.63	0.35	0.28	0.57
GB19292	SPH52		1.80 ± 1.09	0.57	0.73	2.47	1.49	3.32
GB15702	SPH53		6.54 ± 1.76	0.78	0.86	0.95	0.88	1.17
GB15980	SPH54		18.49 ± 2.83	0.96	0.86	0.83	0.93	1.19
GB13019	SPH56		30.56 ± 2.97	0.72	0.82	1.44	0.78	1.13
GB16038	SPH57		8.94 ± 1.88	0.54	1.00	2.25	1.13	1.70

GB12605	TEP7		158.93 ± 29.22	0.72	1.01	1.11	0.80	0.75
GB18789	TEPA	TEP	9.41 ± 0.88	0.62	0.58	0.91	0.52	0.58
GB11563	TEPB		42.68 ± 6.93	0.65	0.85	1.48	0.81	0.66
GB15177	18-w		5.24 ± 2.56	1.02	1.56	2.05	2.21	1.02
GB10655	cact-1		23.26 ± 2.91	0.88	1.42	2.64	1.05	0.59
GB13520	cact-2		47.80 ± 8.40	0.73	0.98	1.40	0.87	0.69
GB19066	dorsal-1A		0.76 ± 0.40	0.17	0.00	0.64	0.00	0.00
GB18032	Dorsal-2		3.54 ± 1.02	0.66	0.67	0.45	0.18	0.58
GB14720	Mik2		12.62 ± 2.68	0.93	0.82	0.94	0.67	0.78
GB12344	MyD88		27.84 ± 5.65	1.20	1.32	1.47	0.88	0.91
GB16472	NEC LIKE		215.14 ± 45.76	0.81	1.82	1.64	0.90	0.68
GB17012	NEC LIKE		15.60 ± 3.45	0.95	0.80	0.98	0.77	1.05
GB19582	NEC LIKE		525.58 ± 62.75	0.68	0.85	1.61	1.00	0.89
GB16397	Pelle		27.86 ± 4.92	0.98	0.87	1.33	0.79	0.78
GB16970	Pellino	Toll/TLR	90.97 ± 5.17	0.74	0.72	0.90	0.87	1.00
GB14044	PSH LIKE		36.28 ± 3.58	0.86	1.11	2.08	1.30	1.03
GB15640	PSH LIKE		90.24 ± 17.24	0.86	0.95	0.96	0.89	0.97
GB13503	SPZ		16.86 ± 4.25	1.22	0.90	0.90	0.82	0.98
GB15688	SPZ		79.77 ± 16.06	0.64	0.90	0.88	0.63	0.80
GB18520	Toll (TLR)		23.06 ± 2.92	0.61	0.97	1.55	0.63	0.71
GB16299	Toll-10		0.82 ± 0.53	0.55	0.42	1.42	2.05	1.88
GB17781	Toll-6		1.15 ± 0.54	1.19	0.90	1.96	0.92	1.61
GB10640	Toll-8/Trex		0.09 ± 0.08	2.46	0.79	0.77	0.81	2.71
GB17961	Tollip		133.85 ± 14.95	0.81	1.04	1.02	0.81	0.91
GB10539	TRAF2		7.18 ± 2.26	1.69	1.03	0.99	0.94	0.68
GB15684	Tube		51.91 ± 6.75	0.98	0.74	0.98	0.68	0.91