

1. Table 1 : Accession no, gene length, ENC, CAI, and Overall GC (%), GC1 (%), GC2 (%) and GC3 (%) in *Bemisia tabaci*

Gene name	Accession no.	Gene length	ENC	Overall GC (%)	GC1 (%)	GC2 (%)	GC3 (%)	CAI
JNK-MAPK	JF905627.1	1179	57	41.69	53.44	34.35	37.66	0.62
ZHJ-II Vg	GU332721.1	6549	57	48.8	46.4	37.7	62.3	0.83
TFIID	KC161218.1	378	56	42.96	50	40.48	35.71	0.64
SDH-A	KC161216.1	1980	58	45.75	53.48	43.33	40.3	0.69
GST	KC161213.1	612	58	42.17	50.49	36.27	39.71	0.64
α -Tubulin	KC161212.1	1353	58	53.06	56.76	40.13	61.42	0.82
Actin	KC161211.1	1131	54	54.13	52.25	41.11	67.9	0.85
G-protein	KC188671.1	1023	56	45.02	48.68	49.56	35.78	0.64
Erk1/2	JF830802.1	1095	57	39.59	48.77	35.07	36.99	0.62
CSPs	GU250808.1	381	49	53.87	51.18	33.07	74.8	0.84
AChE1	EF675188.1	1962	43	59.58	52.75	42.2	82.87	0.75
AChE2	EF675190.1	1962	43	59.58	52.75	42.2	82.87	0.75
LAC1	JQ966215.1	2733	60	45.57	48.96	39.3	47.53	0.66
Hsp90	DQ093380.1	2163	60	45.31	52.84	27.88	55.2	0.77
B47 CSP	JQ678995.1	381	48	54.02	51.18	33.07	75.59	0.84
B48 CSP	JQ678996.1	381	48	54.15	51.18	33.07	75.59	0.84
G49 CSP	JQ678993.1	381	48	54.46	51.18	33.86	75.59	0.83
G51CSP	JQ678994.1	381	49	54	51.97	33.07	74.8	0.84
B45 CSP	JQ678991.1	381	49	54.18	51.97	33.07	74.8	0.84
Y50 CSP	JQ678979.1	381	48	54.84	51.97	33.07	77.17	0.84

2. Table 2: Accession no, gene length, ENC, CAI, and Overall GC (%), GC1 (%), GC2 (%) and GC3 (%) in *Homalodisca coagulata*

Gene name	Accession no.	Gene length	ENC	Overall GC (%)	GC1 (%)	GC2 (%)	GC3 (%)	CAI
G3PDH	AY588063.1	999	60	50.35	55.26	40.84	53.75	0.77
Arginine Kinase	AY588062.1	1071	53	54.61	56.02	36.97	70.03	0.86
Actin A3a1	AY588060.1	1131	56	53.73	55.17	41.11	64.19	0.81
VTG	DQ118408.1	5673	60	47.89	50.93	38.97	53.89	0.76
EF1a	AY500140.1	1389	60	48.05	54.43	39.96	48.81	0.77
Protein kinase-C	AY588074.1	957	60	48.08	49.84	42.63	51.41	0.73
Tropomyosin	AY588069.1	855	53	53.44	62.11	27.72	69.12	0.83
Aldolase	AY588066.1	1095	55	55.69	58.63	40.27	66.85	0.81

Rhodopsin	AY588065.1	1146	49	55.55	46.07	45.03	75.13	0.83
Muscle actin	AY588061.1	1131	51	56.56	54.64	41.11	73.21	0.87
ferritin GF2	AY588064.1	519	60	46.08	52.02	28.32	55.49	0.73
ATP synthase subunit D	AY588072.1	735	60	44.4	53.88	33.06	45.31	0.71
ATP synthase gamma	AY588070.1	870	60	49.52	51.03	42.76	54.14	0.71

Table 3: Nucleotide composition of overall nucleotide and at 3rd codon position in *Bemisia tabaci* genes

Sr.no	Gene name	A%	A3 %	T%	T3 %	G%	G3 %	C%	C3 %
1	JNK-MAPK	30.03	27.99	28.16	34.35	21.63	19.59	20.19	18.07
2	ZHJ-II Vg	31	17.91	20.2	19.79	17.01	9.44	31.79	52.86
3	TFIID	31.22	30.16	26.72	34.13	18.52	16.67	23.54	19.05
4	SDH-A	28.33	24.55	25.96	35.15	24.7	18.33	21.01	21.97
5	GST	32.19	30.88	25.65	29.41	22.71	19.61	19.44	20.1
6	α -Tubulin	24.54	17.07	22.69	21.51	23.43	15.08	29.34	46.34
7	Actin	24.76	15.92	21.49	16.18	22.99	18.83	30.77	49.07
8	G-protein	27.37	27.27	27.69	36.95	24.63	16.42	20.04	19.35
9	Erk1/2	32.88	32.05	26.85	30.96	20	17.53	20.27	19.45
10	CSPs	28.35	13.39	18.64	11.81	22.57	25.2	30.45	49.61
11	AChE1	22.07	8.1	18.65	9.02	26.86	33.18	32.42	49.69
12	AChE2	22.07	8.1	18.65	9.02	26.86	33.18	32.42	49.69
13	LAC1	30.99	25.36	23.75	27.11	22.14	21.3	23.12	26.23
14	Hsp90	33.75	25.66	20.94	19.14	23.39	22.33	21.91	32.87
15	B47 CSP	28.08	12.6	18.64	11.81	22.83	25.98	30.45	49.61
16	B48 CSP	28.35	13.39	18.37	11.02	22.57	25.2	30.71	50.39
17	G49 CSP	28.08	13.39	18.37	11.02	22.57	25.2	30.97	50.39
18	G51CSP	28.35	13.39	18.37	11.81	22.57	25.2	30.71	49.61
19	B45 CSP	28.35	13.39	18.37	11.81	22.57	25.2	30.71	49.61
20	Y50 CSP	28.35	13.39	17.59	9.45	22.57	25.2	31.5	51.97

Table 4: Nucleotide composition of overall nucleotide and at 3rd codon position in *Homalodisca coagulata* genes

Sr.no.	Gene name	A%	A3%	T%	T3%	G%	G3 %	C%	C3 %
1	G3PDH	24.12	13.81	25.93	32.43	25.53	19.82	24.42	33.93
2	Arginine Kinase	24.28	10.08	21.38	19.89	27.54	31.09	26.8	38.94
3	Actin A3a1	24.85	15.12	21.66	20.69	25.82	27.06	27.67	37.14
4	VTG	27.96	16.82	24.11	29.3	20.04	19.94	27.89	33.95
5	EF1a	27.43	17.28	24.84	33.91	25.56	23.11	22.17	25.7
6	Protein kinase-C	26.33	17.24	25.71	31.35	24.03	23.2	23.93	28.21
7	Tropomyosin	31.23	16.49	15.79	14.39	31.46	40.7	21.52	28.42
8	Aldolase	23.65	10.68	21.1	22.47	27.4	29.04	27.85	37.81
9	Rhodopsin	19.81	9.42	24.78	15.45	23.91	26.7	31.5	48.43
10	Muscle actin	22.1	7.96	21.57	18.83	25.02	24.93	31.3	48.28
11	ferritin GF2	29.67	18.5	25.05	26.01	23.89	25.43	21.39	30.06
12	ATP synthase subunit D	31.97	26.53	23.95	28.16	24.49	24.9	19.59	20.41
13	ATP synthase gamma	26.55	19.66	24.14	26.21	25.29	28.62	24.02	25.52

Table: 5 Codons that are used more frequently than expected (RSCU >1) in *Bemisia tabaci*

Frequently codon used

CODON	RSCU VALUE
TTC	1.528
TTG	1.462
CTC	1.738
ATC	2.164
GTT	1.2
GTC	1.9265
TCC	1.016
TCG	2.4095
CCC	2.004
ACC	2.0265
GCT	1.217
GCC	1.89
TAC	1.6335
CAC	1.518
CAG	1.2315
AAC	1.405
AAG	1.0965
GAC	1.3035
GAA	1.11
TGC	1.34
CGT	2.762
GGT	1.0515
GGA	1.5885

Less frequently used codon

CODON	RSCU VALUE
TTT	0.472
TTA	0.618
CTT	0.925
CTA	0.346
CTG	0.91
ATT	0.5805
ATA	0.257
GTA	0.3505
GTG	0.526
TCT	0.7165
TCA	0.8575
AGT	0.497
AGC	0.503
CCT	0.8815
CCA	0.703
CCG	0.4105
ACT	0.891
ACA	0.627
ACG	0.4565
GCA	0.667
GCG	0.2245
TAT	0.3665
CAT	0.483
CAA	0.7685
AAT	0.595
AAA	0.9035
GAT	0.6965
GAG	0.89
TGT	0.6605
CGC	0.672
CGA	0.7485
CGG	0.437
AGA	0.8805
AGG	0.5025
GGC	0.992
GGG	0.3685

Table: 6 : Codons that are used more frequently than expected (RSCU >1) in *Homalodisca coagulata*

Frequently used codon

CODON	RSCU VALUE
TTC	1.504615
TTG	1.182308
CTC	1.395385
CTG	2.234615
ATC	1.981538
GTC	1.270769
GTG	1.257692
TCT	1.506154
TCC	2.134615
CCT	1.463846
CCC	1.263077
ACT	1.413846
ACC	1.636154
GCT	1.733846
GCC	1.366923
TAC	1.399231
CAC	1.224615
CAG	1.440769
AAC	1.395385
AAG	1.592308
GAC	1.106154
GAG	1.17
TGC	1.293846
CGT	1.577692
CGA	1.365385
AGG	1.193077
GGT	1.280769
GGC	1.2
GGA	1.213846

Less frequently used codon

CODON	RSCU VALUE
TTT	0.495385
TTA	0.09
CTT	0.866154
CTA	0.23
ATT	0.916923
ATA	0.101538
GTT	0.783846
GTA	0.687692
TCA	0.835385
TCG	0.266923
AGT	0.572308
AGC	0.689231
CCA	0.673077
CCG	0.29
ACA	0.845385
ACG	0.103077
GCA	0.635385
GCG	0.265385
TAT	0.600769
CAT	0.775385
CAA	0.559231
AAT	0.605385
AAA	0.408462
GAT	0.893846
GAA	0.83
TGT	0.552308
CGC	0.623077
CGG	0.314615
AGA	0.934615
GGG	0.300769

Table 7 : Summary of Amino acid composition of each gene in *Bemisia tabaci*

Sl.no.	Amino acid	JNK-MAP K	ZHJ-II Vg	TFIID	SDH-A	GST	α -Tubulin	Actin	G-protein	Erk1/2	CSPs
1	Ser (S)	24	267	13	40	7	21	23	34	19	1
2	Phe(F)	15	118	3	20	9	20	12	11	16	6
3	Leu(L)	37	96	11	55	17	32	28	26	41	15
4	Tyr(Y)	20	126	7	24	11	19	16	8	17	4
5	Cys(C)	6	16	1	15	1	12	7	14	6	5
6	Pro(P)	19	81	7	25	13	20	19	7	18	4
7	His(H)	12	44	2	20	1	13	9	9	11	1
8	Gln(Q)	16	153	5	22	2	16	12	7	13	8
9	Arg(R)	22	90	6	37	7	21	18	21	22	2
10	Ile(I)	24	73	6	35	16	24	30	19	26	3
11	Thr(T)	18	63	9	42	10	30	25	27	21	13
12	Asn(N)	14	296	7	33	6	16	9	14	17	4
13	Lys(L)	21	117	8	32	21	19	19	10	20	17
14	Val(V)	28	113	7	38	12	37	22	17	16	7
15	Ala(A)	22	204	12	61	19	37	30	29	23	11
16	Asp(D)	25	81	9	39	15	27	23	27	25	8
17	Glu(E)	25	105	7	37	15	35	26	12	24	9
18	Gly(G)	20	92	3	61	12	36	29	28	15	6

AChE1	AChE2	LAC1	Hsp90	B47 CSP	B48 CSP	G49 CSP	G51CSP	B45 CSP	B46 CSP
50	50	71	38	1	1	1	1	1	1
36	36	36	29	6	6	6	6	6	6
58	58	64	57	15	15	15	15	9	15
25	25	30	22	4	4	4	4	4	4
9	9	18	6	5	5	5	5	5	5
38	38	61	22	4	4	5	4	4	4
16	16	42	12	1	1	1	1	1	1
21	21	28	19	8	8	7	8	8	8
32	32	44	27	2	2	2	2	2	2
39	39	59	44	3	3	3	3	3	3
40	40	58	35	13	13	13	13	13	13
39	39	58	29	4	4	4	4	4	4
26	26	47	82	17	17	17	17	17	17
32	32	55	49	7	7	7	7	7	7
49	49	46	37	11	11	11	11	11	11
32	32	50	59	8	8	8	8	8	8
36	36	58	92	9	9	9	9	9	9
45	45	49	32	6	6	6	6	6	6

Table: 8: Summary of Amino acid composition of each gene in *Homalodisca coagulata*

Sr.no.	Amino acid	G3PDH	AK	Actin A3a1	VTG	EF1a	PKC	Tropomyosin
1	Ser(S)	21	16	25	211	23	33	16

2	Phe(F)	13	19	12	83	17	7	3
3	Leu(L)	20	35	28	129	25	27	27
4	Tyr(Y)	11	11	16	95	9	9	3
5	Cys(C)	2	5	6	16	7	9	2
6	Pro(P)	14	12	19	99	24	11	0
7	His(H)	6	9	9	42	12	13	1
8	Gln(Q)	5	11	12	181	11	9	19
9	Arg(R)	1	17	18	61	17	13	16
10	Ile(I)	23	16	26	73	34	17	5
11	Thr(T)	18	24	25	95	29	21	9
12	Asn(N)	14	14	10	142	16	15	9
13	Lys(L)	27	29	19	97	49	22	36
14	Val(V)	34	19	23	123	39	23	19
15	Ala(A)	33	25	30	166	40	17	29
16	Asp(D)	25	24	22	66	21	27	25
17	Glu(E)	11	29	27	75	34	8	46
18	Gly(G)	34	30	28	73	40	19	7

Aldolase	Rhodopsin	Muscle actin	ferritin GF2	ATPase-D	ATPase gamma
19	34	23	13	11	28
10	22	12	8	9	10
34	37	28	17	30	26
13	20	16	9	6	9
6	11	7	1	0	4
17	21	19	2	3	6
5	6	9	6	2	1
17	6	12	8	13	17
16	7	18	9	16	11
19	22	30	11	15	21
19	22	25	4	14	18
17	15	9	12	8	11
28	16	19	11	27	19
28	27	24	9	14	17
39	44	30	9	22	34
29	9	23	14	13	10
22	10	26	14	20	17
28	20	29	10	15	15