

**Supplementary Table 1: A catalogue of known proteins identified by using in-gel digestion strategy and LC/MS/MS using MASCOT algorithm**

S.no	Accession number/vector base Accession number	Protein	Mol. Weight	Peptides	Calculated pI	Sequence coverage	Domain/Function
1	ASTM005454-PA	Tropomyosin 2	30832	5	4.82	17%	No conserved domain
2	ASTM006933-PA	Myosin heavy chain	135972	5	5.2	4%	Motor activity
3	ASTM007096-PA	sulfate transporter protein	88306	2	9.27	2%	Transport
4	ASTM014183-PA	Hypothetical protein/ATP synthase alpha subunit	80465	2	9.81	2%	ATPase enzyme
5	GI: 339649279	Glutathione S-Transferase E4	25076	1	6.53	5%	No conserved domain
6	ASTM000527-PA	Hypothetical protein	66553	1	8.09	1%	uncharacterized
7	ASTM017293-PA	Porin (voltage dependent anion selective channel)	42907	1	9.12	1%	Anion transport
8	ASTM005798-PA	elongation factor1 alpha 1	59939	1	8.71	1%	GTP binding
9	ASTM010693-PA	short chain dehydrogenase	27502	2	7	8%	oxidoreductase function
10	ASTM014983-PA	Histone H2A	13355	2	10.72	11%	nucleosome assembly/DNA binding
11	ASTM009772-PA	Actin	41852	2	5.36	7%	Actin protein HSP70/ATP binding
12	ASTM015472-PA	Hypothetical protein	21893	1	8.29	10%	Uncharacterized
13	ASTM005771-PA	Peptide N-glycanase	85828	2	8.77	1%	signal transduction
14	ASTM009670-PA	Prefoldin subunit	18939	1	5.66	4%	[Posttranslational modification, protein turnover, chaperones]

15	ASTM017244-PA	JmjC domain-containing histone demethylation protein	48571	1	9.07	2%	protein binding
16	ASTM000815-PA	Hypothetical protein	181818	2	8.47	1%	Signal transduction
17	ASTM001058-PA	Hypothetical protein (Rho effector protein)	15505	1	9.16	5%	Signal transduction
18	GI:373880220	Calreticulin	46514	2	4.37	2%	Unfolded protein binding
19	ASTM007078-PA	Axonemal dynein light chain	28779	1	5.5	2%	Motility
20	ASTM017761-PA	Type -2 keratin	56560	2	7	3%	Cell division and chromosome partitioning
21	ASTM012154-PA	Hypothetical protein	7046	1	6.9	11%	Uncharacterized
22	GI:380865625	BZIP1 OS	41596	3	8.85	4%	DNA binding
23	GI:66863200	Putative reverse transcriptase (Fragment)	13461	1	9.93	4%	RNA-directed DNA polymerase activity

**Supplementary Table 2: A catalogue of novel proteins identified by using in-gel digestion strategy and LC/MS/MS using OMSSA algorithm**

S.no	Accession	Features	MW	% Seq Coverage	E value	Domain
1	gil3617768	nitric oxide synthase [similar to <i>Anopheles gambiae</i> ]	2321.1	14%	0.04	Ferrous reductase transfer
2	gil46948820	maverick [similar to <i>Anopheles gambiae</i> ]	2205.03	14%	0.05	TGFβlike domain
3	gil159032230	zinc finger protein 294 [similar to <i>Anopheles gambiae</i> ]	3058.42	14%	0.03	No conserved domain
4	gil148616061	transposase [similar to <i>Anopheles gambiae</i> ]	2471.09	14%	0.002	Zinc finger domain
5	gil90654898	short neuropeptide F prepropeptide [similar to <i>Anopheles gambiae</i> ]	3491.73	13%	0.049	No conserved domain
6	gil3170241	TU37B2 [similar to <i>Anopheles gambiae</i> ]	2886.33	13%	0.005	Integral membrane protein
7	gil15485212	calpain [similar to <i>Anopheles gambiae</i> ]	2763.78	12%	0.01	Cysteine proteinases , calpain domain
8	gil145559280	CTLMA2 [similar to <i>Anopheles gambiae</i> ]	1988.89	11%	0.04	Ctype lectin
9	gil4099803	Tc1-like transposase [similar to <i>Anopheles gambiae</i> ]	3921.89	10%	0.02	Transposase domain
10	gil77415700	hypothetical protein [similar to <i>Anopheles gambiae</i> ]	1939.92	10%	0.03	Insect pheromone binding family
11	gil37962892	ICHIT [similar to <i>Anopheles gambiae</i> ]	3580.8	10%	0.055	Chitin binding domain
12	gil119393795	Rab5 [similar to <i>Anopheles gambiae</i> ]	2223.13	10%	0.008	Rab related GTPase family, nucleotide Po <sub>4</sub> bindind motif
13	gil37703102	FBN23 [similar to <i>Anopheles gambiae</i> ]	3325.7	10%	4.94E-05	No conserved domain
14	gil40792589	superoxide dismutase 1 [similar to <i>Anopheles gambiae</i> ]	2212.16	9%	0.04	Fe-Mn superoxide dismutase

15	gil62528997	CAPA-like receptor [similar to <i>Anopheles gambiae</i> ]	4301.27	9%	0.003	No conserved domain
16	gil6635467	immune-responsive serine protease-related protein ISPR9 [similar to <i>Anopheles gambiae</i> ]	1754.84	9%	0.05	No conserved domain
17	gil18140727	twelve cysteine protein 1 [similar to <i>Anopheles gambiae</i> ]	1622.22	9%	0.007	No conserved domain
18	gil56067723	alanyl-tRNA synthetase [similar to <i>Anopheles gambiae</i> ]	3093.48	9%	0.0007	tRNA synthetase
19	gil1220128	vacuolar ATPase [similar to <i>Anopheles gambiae</i> ]	1425.68	9%	0.04	F subunit
20	gil187441860	CLIPB15 protein [similar to <i>Anopheles gambiae</i> ]	1761.77	9%	0.03	Trypsin like serine proteases
21	gil52429829	fruitless female-specific zinc-finger C isoform [similar to <i>Anopheles gambiae</i> ]	5456.18	9%	0.02	No conserved domain
22	gil224038197	serine protease 14 [similar to <i>Anopheles gambiae</i> ]	3277.52	9%	0.02	Trypsin like serine proteases
23	gil63259109	CYP325C2 [similar to <i>Anopheles gambiae</i> ]	2376.09	8%	0.047	Cyp x domain
24	gil38196173	SRPN9 [similar to <i>Anopheles gambiae</i> ]	2298.15	8%	0.0005	Proteinase inhibitors
25	gil19577378	putative translation initiation factor [similar to <i>Anopheles gambiae</i> ]	3156.38	8%	0.034	Salvage domain
26	gil28396156	putative antennal carrier protein TOL-1 [similar to <i>Anopheles gambiae</i> ]	2636.35	8%	0.013	Juvenile hormone
27	gil38708297	SP22D [similar to <i>Anopheles gambiae</i> ]	2217.18	7%	0.01	Chitin binding domain
28	gil2253393	serine protease 14D [similar to <i>Anopheles gambiae</i> ]	2613.33	7%	0.04	Trypsin like serine protease
29	gil56067837	heat shock protein DnaJ [similar to <i>Anopheles gambiae</i> ]	1368.7	7%	0.04	Thioredox domain

30	gil253970801	putative Ropn11-like protein [similar to <i>Anopheles gambiae</i> ]	4970.35	7%	0.04	No conserved domain
31	gil47606680	G-protein coupled receptor 4 [similar to <i>Anopheles gambiae</i> ]	3301.71	7%	0.03	transmembrane receptor
32	gil2076747	engrailed [similar to <i>Anopheles gambiae</i> ]	3411.61	6%	0.002	No conserved domain
33	gil325699280	AGAP007032-PA [similar to <i>Anopheles gambiae</i> ]	2639.15	6%	0.035	No conserved domain
34	gil3128484	dopa decarboxylase isoform 2 [similar to <i>Anopheles gambiae</i> ]	3316.63	6%	0.06	Pyridoxal P <sub>0</sub> <sub>4</sub> dependent
35	gil327244539	APL1B [similar to <i>Anopheles gambiae</i> ]	3546.66	6%	0.009	Leucine rich repeat
36	gil14572580	arrestin [similar to <i>Anopheles gambiae</i> ]	2245.27	6%	0.004	S antigen C like domain
37	gil21541544	glutathione S-transferase 3-8 [similar to <i>Anopheles gambiae</i> ]	1649.07	6%	0.01	GST domain
38	gil160905682	ACP receptor [similar to <i>Anopheles gambiae</i> ]	3301.71	6%	0.03	7 transmembrane receptor
39	gil239819632	carbonic anhydrase 4 [similar to <i>Anopheles gambiae</i> ]	2457.2	6%	0.016	No conserved domain
40	gil577351	putative nucleic acid binding protein [similar to <i>Anopheles gambiae</i> ]	2433.2	6%	0.01	No conserved domain
41	gil187447804	ENSANGG00000009053 protein [similar to <i>Anopheles gambiae</i> ]	1584.76	6%	0.001	No conserved domain
42	gil19572383	putative glycerol kinase [similar to <i>Anopheles gambiae</i> ]	2884.43	5%	0.01	Kinase,HSP70
43	gil51873097	nicotinic acetylcholine receptor subunit beta 1 [similar to <i>Anopheles gambiae</i> ]	3427.58	5%	0.002	Neurotransmitter type domain
44	gil28569863	gag-like protein [similar to <i>Anopheles gambiae</i> ]	2485.18	5%	0.04	No conserved domain

45	gil17932668	Ag9 protein [similar to <i>Anopheles gambiae</i> ]	1996.87	5%	0.01	apyrase
46	gil270266159	plugin [similar to <i>Anopheles gambiae</i> ]	3331.58	5%	0.024	No conserved domain
47	gil284928365	CLIPB14 [similar to <i>Anopheles gambiae</i> ]	2193.06	5%	0.001	Trypsin like serine protease
48	gil118500886	gustatory receptor 22 [similar to <i>Anopheles gambiae</i> ]	2735.31	5%	0.0001	No conserved domain
49	gil225675537	signal transducer and activator of transcription [similar to <i>Anopheles gambiae</i> ]	4579.86	5%	0.01	STAT protein, $\alpha$ domain
50	gil75911308	protein O-fucosyltransferase 1 [similar to <i>Anopheles gambiae</i> ]	2446.33	5%	0.001	GDP fucose protein
51	gil62529001	pyrokinin-like receptor 2 [similar to <i>Anopheles gambiae</i> ]	2723.4	4%	0.01	No conserved domain
52	gil226711462	RecName: Full=Cytoplasmic tRNA 2-thiolation protein 2 (similar to <i>An. gambiae</i> )	2026.97	4%	0.01	No conserved domain
53	gil145413657	LRIM1 [similar to <i>Anopheles gambiae</i> ]	2111.07	4%	0.002	No conserved domain
54	gil54124667	peroxidase 15 [similar to <i>Anopheles gambiae</i> ]	1289.6	4%	0.002	Animal heme peroxidases
55	gil156028184	AGAP002429-PA [similar to <i>Anopheles gambiae</i> ]	2333.27	4%	0.0003	CypX
56	gil3406737	S-adenosyl-L-homocysteine hydrolase [Anopheles gambiae]	2103.76	4%	0.004	Hydrolases domain
57	gil222160938	putative cation proton antiporter [similar to <i>Anopheles gambiae</i> ]	2309.05	4%	0.01	K <sup>+</sup> transport
58	gil46948822	medea [similar to <i>Anopheles gambiae</i> ]	3546.68	4%	0.02	MH <sub>2</sub> domain
59	gil19577386	putative chitin binding protein [similar to <i>Anopheles gambiae</i> ]	2310.17	4%	0.008	No conserved domain

60	gil6759388	putative serine protease inhibitor [similar to <i>Anopheles gambiae</i> ]	1502.76	3%	0.037	Chaperonins proteins
61	gil62911114	lysozyme c-6 [similar to <i>Anopheles gambiae</i> ]	2801.14	3%	0.009	C type lysozyme
62	gil732550	Anlar [similar to <i>Anopheles gambiae</i> ]	3760.79	3%	0.003	Tyrosine phosphatases
63	gil46981770	tryptophan transporter [similar to <i>Anopheles gambiae</i> ]	2361.14	3%	0.005	Sodium neurotransmitter
64	gil332330728	chitinase 5-3 [similar to <i>Anopheles gambiae</i> ]	1524.78	3%	0.012	GH18 type II glyco18 domain
65	gil327244332	APL1A [similar to <i>Anopheles gambiae</i> ]	1735.07	3%	0.005	No conserved domain

\*OMSSA: Open mass spectrometry search algorithm