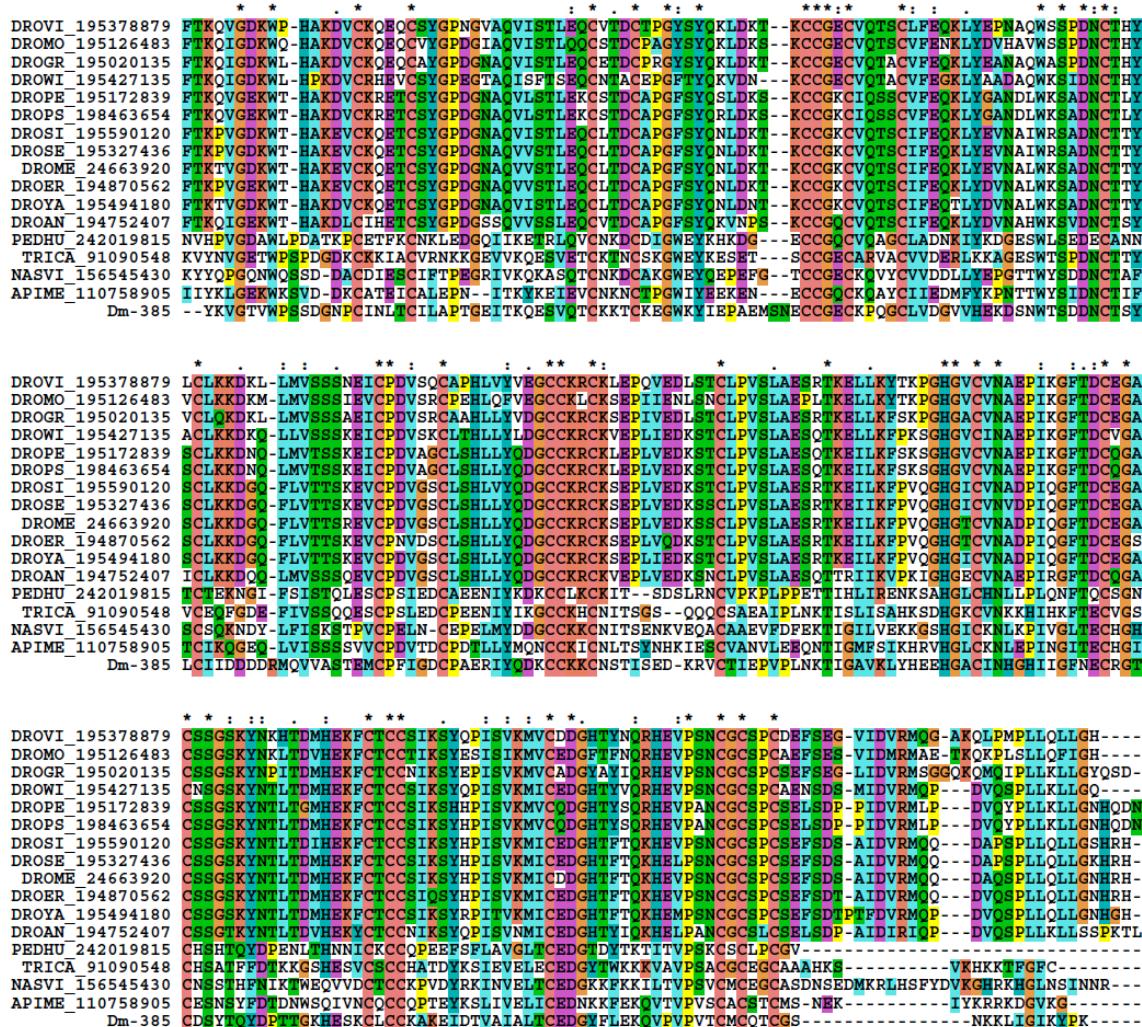


Supplemental figure 1 – Clustal alignment of the Hemolysin-domain containing protein with other hemolysin-like secreted salivary proteins from *T. infestans*. The symbols above the alignment indicate: (*) identical sites; (:) conserved sites; (.) less conserved sites.

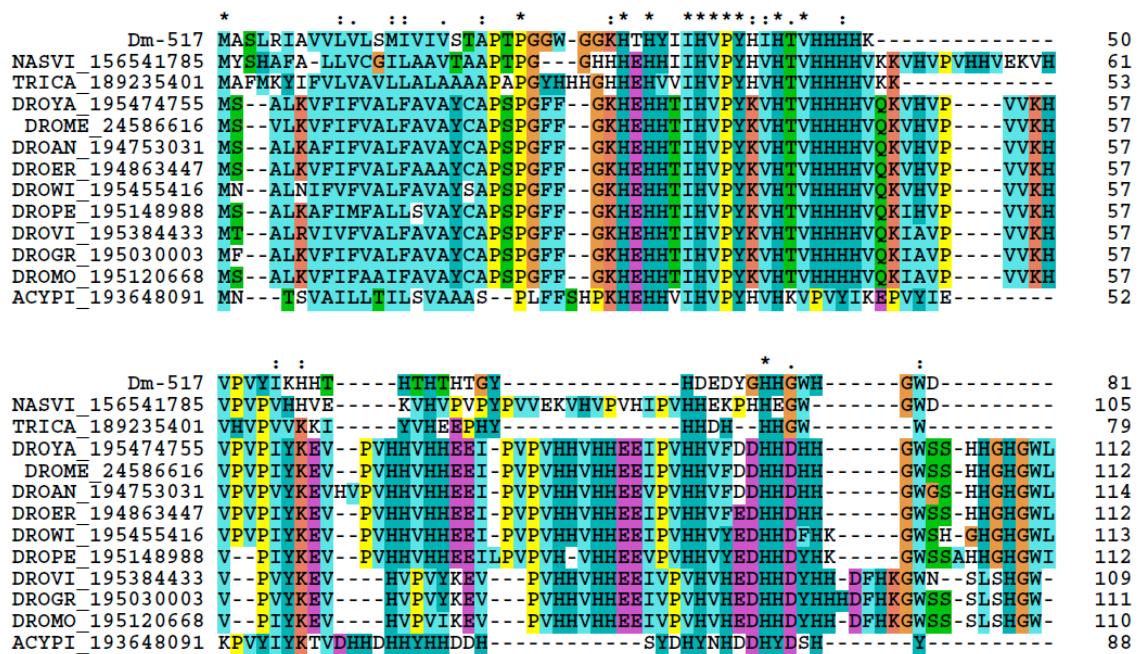
TRIIN_149898852	--MAIALLFFC <ins>S</ins> LLLATS <ins>LG</ins> -----	-YGIDRTILNQMPGGVADVVNGIDVA <ins>D</ins> NVKLT <ins>T</ins> QI <ins>S</ins> AV <ins>E</ins> HGTNLGKMGVAAG <ins>T</ins> TSKG <ins>L</ins> GGVT	85
TRIIN_149689120	--MAIALLFFC <ins>S</ins> LLLATS <ins>LG</ins> -----	-YGIDRTILNQMPGRVADVVNGIDVA <ins>E</ins> KVRETT <ins>T</ins> QI <ins>I</ins> DAVEHGTNLGKMGVAAC <ins>G</ins> ILTSKG <ins>L</ins> QGVA	85
TRIIN_149689178	--MAIALLFFC <ins>S</ins> LLLATS <ins>LG</ins> -----	-GYDRTILNQAFGRIADVVNG <ins>G</ins> VEVA <ins>E</ins> KTRRLT <ins>T</ins> QI <ins>I</ins> SALEHGTNLGKMGVAAG <ins>T</ins> TSKG <ins>L</ins> GGVS	85
Dm-594	--MESVLFFSC <ins>S</ins> LLLGF <ins>LG</ins> CON-----	-HNDRILNKV <ins>V</ins> LGTVSDVATH <ins>P</ins> ADI <ins>I</ins> HEKV <ins>V</ins> LA <ins>K</ins> LES <ins>G</ins> V <ins>H</ins> GTNLGKMGVAASAVL <ins>B</ins> <ins>S</ins> GLGQAI	86
TRIIN_149689148	MKHST <ins>I</ins> IVFSL <ins>G</ins> LLHYAAHGAPN <ins>I</ins> F <ins>G</ins> SP <ins>L</ins> -----SAAEYY <ins>V</ins> SGK <ins>I</ins> NK <ins>A</ins> EV <ins>G</ins> V <ins>I</ins> SLV <ins>N</ins> T <ins>A</ins> LG <ins>S</ins> LGSAAYM <ins>G</ins> T <ins>S</ins> AKAGLSSVA <ins>E</ins> LGNEV <ins>V</ins> SGVV	95	
TRIIN_149898852	<ins>D</ins> LGK <ins>G</ins> LDLV <ins>G</ins> IAE <ins>V</ins> IPGAD <ins>L</ins> P <ins>V</ins> R <ins>I</ins> V <ins>D</ins> IGK <ins>G</ins> GV <ins>V</ins> LNN <ins>N</ins> Q <ins>E</ins> GI <ins>K</ins> KA <ins>S</ins> Y <ins>F</ins> LG <ins>E</ins> V <ins>L</ins> D <ins>K</ins> T <ins>K</ins> LA <ins>R</ins> L <ins>T</ins> IG <ins>T</ins> IVEN <ins>L</ins> SSACT <ins>A</ins> IA <ins>K</ins> GAV <ins>T</ins> C <ins>A</ins> N <ins>A</ins> VA	180	
TRIIN_149689120	<ins>D</ins> LGK <ins>G</ins> LDLV <ins>G</ins> IAE <ins>V</ins> IPGABELL <ins>P</ins> V <ins>R</ins> I <ins>V</ins> D <ins>I</ins> GK <ins>G</ins> GV <ins>V</ins> LNN <ins>N</ins> Q <ins>E</ins> GI <ins>K</ins> KA <ins>S</ins> Y <ins>F</ins> LG <ins>E</ins> V <ins>L</ins> D <ins>K</ins> T <ins>K</ins> LA <ins>R</ins> L <ins>T</ins> IG <ins>T</ins> IVEN <ins>L</ins> SSACT <ins>A</ins> IA <ins>K</ins> GAV <ins>T</ins> C <ins>A</ins> N <ins>A</ins> VA	180	
TRIIN_149689178	<ins>D</ins> IGK <ins>G</ins> LDL <ins>I</ins> CTVV <ins>V</ins> IVB <ins>G</ins> ABELL <ins>P</ins> V <ins>R</ins> I <ins>V</ins> D <ins>A</ins> GK <ins>G</ins> GV <ins>V</ins> LNN <ins>N</ins> Q <ins>K</ins> GI <ins>K</ins> KA <ins>S</ins> Y <ins>F</ins> LG <ins>E</ins> V <ins>L</ins> D <ins>K</ins> T <ins>K</ins> LA <ins>R</ins> L <ins>T</ins> IG <ins>T</ins> IVD <ins>N</ins> SSACT <ins>A</ins> IA <ins>T</ins> NET <ins>V</ins> TA <ins>A</ins> N <ins>A</ins> VA	180	
Dm-594	<ins>D</ins> IGK <ins>G</ins> AID <ins>L</ins> DLV <ins>G</ins> TV <ins>G</ins> E <ins>I</ins> V <ins>P</ins> G <ins>V</ins> ELL <ins>P</ins> V <ins>K</ins> H <ins>I</ins> D <ins>G</ins> GRAIL <ins>I</ins> L <ins>G</ins> NN <ins>I</ins> QT <ins>G</ins> IK <ins>A</ins> TS <ins>Y</ins> LG <ins>N</ins> V <ins>L</ins> D <ins>K</ins> T <ins>K</ins> LA <ins>R</ins> L <ins>T</ins> IG <ins>T</ins> IVD <ins>N</ins> SSACT <ins>A</ins> CL <ins>I</ins> KNT <ins>V</ins> ST <ins>S</ins> L <ins>N</ins> AVA	181	
TRIIN_149689148	NVAD <ins>K</ins> GLGFV <ins>S</ins> NLS <ins>E</ins> K <ins>I</ins> P <ins>-</ins> V <ins>G</ins> V <ins>P</ins> I <ins>K</ins> E <ins>V</ins> G <ins>V</ins> G <ins>R</ins> V <ins>T</ins> I <ins>D</ins> L <ins>I</ins> PS <ins>V</ins> T <ins>K</ins> D <ins>V</ins> N <ins>L</ins> I <ins>E</ins> S <ins>I</ins> G <ins>K</ins> ALT <ins>A</ins> AA <ins>I</ins> LT <ins>T</ins> GT <ins>V</ins> GA <ins>A</ins> TH <ins>G</ins> GAAG <ins>G</ins> RY <ins>A</ins> V <ins>D</ins> A <ins>A</ins> D <ins>L</ins> T <ins>I</ins>	189	
TRIIN_149898852	----- <ins>V</ins> L <ins>N</ins> T <ins>G</ins> MDALMAF <ins>V</ins> PG <ins>G</ins> S <ins>K</ins> IN <ins>A</ins> I <ins>Q</ins> D <ins>I</ins> I <ins>K</ins> AI <ins>T</ins> PG <ins>I</ins> A <ins>K</ins> P <ins>N</ins> P <ins>E</ins> <ins>K</ins> IA <ins>K</ins> ----- <ins>P</ins> E <ins>S</ins> I <ins>S</ins> <ins>G</ins> GL <ins>G</ins> S <ins>Y</ins> L <ins>T</ins> <ins>S</ins> C <ins>L</ins> FF <ins>G</ins> R	249	
TRIIN_149689120	----- <ins>V</ins> L <ins>N</ins> T <ins>G</ins> MDALMAF <ins>V</ins> PG <ins>G</ins> S <ins>K</ins> IN <ins>A</ins> I <ins>Q</ins> D <ins>I</ins> I <ins>K</ins> AI <ins>T</ins> PG <ins>I</ins> A <ins>K</ins> P <ins>N</ins> P <ins>E</ins> <ins>K</ins> ICK----- <ins>P</ins> E <ins>S</ins> P <ins>R</ins> <ins>S</ins> <ins>G</ins> GL <ins>G</ins> S <ins>Y</ins> L <ins>T</ins> <ins>S</ins> C <ins>L</ins> FF <ins>G</ins> R	249	
TRIIN_149689178	----- <ins>V</ins> L <ins>N</ins> T <ins>G</ins> MDALMAF <ins>V</ins> PG <ins>G</ins> S <ins>K</ins> IN <ins>A</ins> I <ins>Q</ins> D <ins>I</ins> I <ins>K</ins> AI <ins>T</ins> PG <ins>I</ins> A <ins>K</ins> P <ins>N</ins> P <ins>E</ins> <ins>K</ins> IA <ins>E</ins> H <ins>V</ins> PP <ins>P</ins> V <ins>V</ins> K <ins>P</ins> D <ins>V</ins> E <ins>P</ins> N <ins>A</ins> I <ins>S</ins> V <ins>P</ins> G <ins>V</ins> P <ins>E</ins> P <ins>V</ins> P <ins>S</ins> GG <ins>I</ins> S <ins>E</ins> Y <ins>I</ins> S <ins>C</ins> GL <ins>S</ins> Y <ins>I</ins> GR	272	
Dm-594	----- <ins>V</ins> M <ins>N</ins> T <ins>G</ins> MD <ins>A</ins> RAF <ins>R</ins> AF <ins>M</ins> P <ins>G</ins> G <ins>T</ins> E <ins>N</ins> E <ins>I</ins> L <ins>D</ins> I <ins>P</ins> <ins>E</ins> -LP <ins>K</ins> VA <ins>E</ins> P <ins>P</ins> E <ins>K</ins> IA <ins>E</ins> H <ins>V</ins> PP <ins>P</ins> V <ins>V</ins> K <ins>P</ins> D <ins>V</ins> E <ins>P</ins> N <ins>A</ins> I <ins>S</ins> V <ins>P</ins> G <ins>V</ins> P <ins>E</ins> P <ins>V</ins> P <ins>S</ins> GG <ins>I</ins> S <ins>E</ins> Y <ins>I</ins> S <ins>C</ins> GL <ins>S</ins> Y <ins>I</ins> GR	223	
TRIIN_149689148	----- <ins>G</ins> A <ins>I</ins> T <ins>R</ins> T <ins>P</ins> ----- <ins>I</ins> F <ins>P</ins> A <ins>-</ins> ----- <ins>L</ins> E <ins>P</ins> L <ins>P</ins> E <ins>P</ins> E <ins>P</ins> N <ins>G</ins> I <ins>I</ins> QN----- <ins>I</ins> L <ins>E</ins> Y <ins>T</ins> G-----	198	

Supplemental figure 2 – Clustal alignment of members of the Hemolectin family protein. The *D. maxima* protein is indicated by Dm-385. The remaining sequences are named with the first three letters from the genus name followed by two letters from the species name and by their NCBI protein accession number. Only the carboxy-terminal region is shown. The symbols above the alignment indicate: (*) identical sites; (:) conserved sites; (.) less conserved sites.

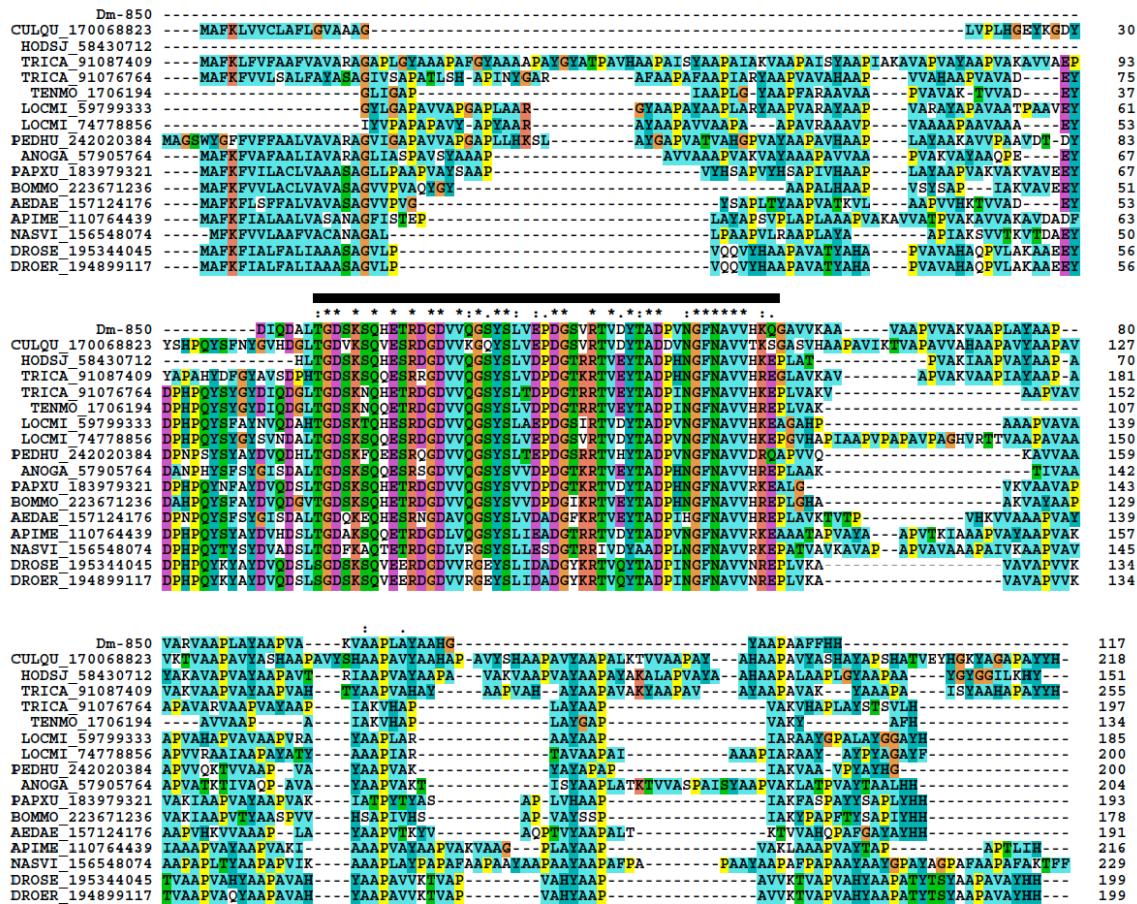


Supplemental figure 3 – Clustal alignment of a predicted sequence from a contig of *D. maxima*

library with similarity to a secreted Histidine rich peptide precursor. The symbols above the alignment indicate: (*) identical sites; (:) conserved sites; (.) less conserved sites.



Supplemental figure 4 – Clustal alignment of a predicted sequence from a contig of *D. maxima* library that showed similarity to a larval cuticle protein. The thick bar indicates the chitin-binding domain region. The symbols above the alignment indicate: (*) identical sites; (:) conserved sites; (.) less conserved sites.



Supplemental Table 1. Identification of Proteins of *Dipetalogaster maxima* Saliva by Peptide Mass Fingerprinting

Spot ^a	Identity ^b	Accession number (cDNA library) ^c	Score ^d	Coverage (%) ^e	Mol. Mass (kDa) ^f		Isoelectric Point ^g	
					Exp.	Theor.	Exp.	Theor.
1	Apyprase	Dm-68	74 > 48	31	94.4	25.0	4.8	4.8
2	Apyprase	Dm-68	53 > 48	17	94.0	25.0	5.0	4.8
3	Apyprase	Dm-68	70 > 48	26	95.7	25.0	5.1	4.8
4	Apyprase	Dm-68	49 > 48	16	95.0	25.0	5.2	4.8
5	Lipocalin	Dm-96	68 > 48	28	83.1	17.7	7.6	5.2
6	Lipocalin	Dm-96	51 > 48	25	53.5	17.7	5.0	5.2
7	Lipocalin	Dm-105	84 > 48	42	44.6	16.0	5.9	5.4
8	Lipocalin	Dm-45	60 > 48	24	43.3	19.8	6.6	6.9
9	Lipocalin	Dm-272	95 > 48	46	42.5	17.6	8.4	7.7
10	Lipocalin	Dm-270	77 > 48	29	40.0	17.3	8.4	7.7
11	Lipocalin	Dm-270	129 > 48	50	38.5	17.3	8.4	7.7
12	Lipocalin	Dm-96	61 > 48	31	33.6	17.7	5.0	5.2
13	Antigen-5	Dm-124	53 > 48	18	31.1	28.3	8.4	8.6
14	Antigen-5	Dm-124	88 > 48	38	31.4	28.3	8.6	8.7
15	Antigen-5	Dm-124	136 > 48	38	30.4	28.3	8.2	8.6
16	Antigen-5	Dm-124	58 > 48	14	30.4	28.3	8.4	8.6
17	Antigen-5	Dm-79	80 > 48	46	30.0	21.2	8.6	8.5
18	Lipocalin	Dm-105	60 > 48	28	28.7	16.0	5.9	5.4
19	Lipocalin	Dm-75	58 > 48	34	27.3	14.9	5.9	5.2
20	Lipocalin	Dm-78	90 > 48	31	25.7	18.1	7.0	6.6

Spot ^a	Identity ^b	Accession number (cDNA library) ^c	Score ^d	Coverage (%) ^e	Mol. Mass (kDa) ^f		Isoelectric Point ^g	
					Exp.	Theor.	Exp.	Theor.
21	Lipocalin	Dm-99	97 > 48	48	25.7	14.3	9.4	8.9
22 Mixture	Lipocalin	Dm-1189 Dm-288	196 > 48	77 36	25.0	11.4 21.4	9.5	9.6 7.5
23	Pallidipin	Dm-1049	72 > 48	40	24.6	20.3	6.8	6.5
24	Pallidipin	Dm-1049	66 > 48	33	24.1	20.3	7.0	6.5
25	Pallidipin	Dm-1049	85 > 48	32	24.3	20.3	7.2	6.5
26	Unknown	M_ASB-722_FR2	52 > 48	13	24.2	31.8	8.4	10.4
27	Lipocalin	Dm-346	118 > 48	47	23.8	20.2	8.8	8.7
28 Mixture	Pallidipin Lipocalin	M_ASB-1047_FR1 Dm-78	116 > 48	18 26	23.0	39.4 18.1	7.0	9.9 6.6
29	Lipocalin	Dm-49	261 > 48	68	23.0	20.2	8.4	8.1
30	Lipocalin	Dm-346	70 > 48	35	22.5	20.2	8.8	8.7
31	Lipocalin	Dm-240	65 > 48	28	22.0	17.9	6.7	7.0
32	Lipocalin	Dm-270	175 > 48	43	21.5	17.3	8.5	7.7
33	Lipocalin	Dm-270	95 > 48	26	21.5	17.3	8.8	7.7
34	Lipocalin	Dm-96	70 > 48	35	22.1	17.7	5.0	5.2
35	Lipocalin	Dm-270	122 > 48	43	21.2	17.3	7.7	7.7
36	Lipocalin	Dm-96	64 > 48	40	20.6	17.7	5.0	5.2
37	Lipocalin	Dm-96	89 > 48	40	20.7	17.7	5.3	5.2
38	Lipocalin	Dm-171	68 > 48	36	20.3	8.2	6.2	8.6
39 Mixture	Lipocalin	Dm-278 Dm-78	102 > 48	28 26	20.4	16.3 18.0	7.0	5.6 6.6
40 Mixture	Lipocalin	Dm-237 Dm-278	158 > 48	42 37	20.0	15.2 16.3	7.7	6.1 5.6

Spot ^a	Identity ^b	Accession number (cDNA library) ^c	Score ^d	Coverage (%) ^e	Mol. Mass (kDa) ^f		Isoelectric Point ^g	
					Exp.	Theor.	Exp.	Theor.
41 Mixture	Lipocalin	Dm-270 Dm-346	131 >48	45 40	20.3	17.3 20.1	8.8	7.7 8.7
42	Lipocalin	Dm-96	69 > 48	33	19.7	17.7	5.0	5.2
43	Lipocalin	Dm-270	124 >48	49	18.8	17.3	7.7	7.7
44	Lipocalin	Dm-272	139 >48	46	19.4	17.6	8.4	7.7
45 Mixture	Lipocalin	Dm-278 Dm-258	123 >48	32 27	19.8	16.3 17.7	8.8	5.6 7.7
46	Lipocalin	Dm-270	93 > 48	26	19.5	17.3	9.5	7.7
47	Lipocalin	Dm-278	94 > 48	36	19.1	16.4	9.8	5.6

^a Spot numbers are indicated in Figure 2.

^b Results obtained by MASCOT software against partial predicted proteins library.

^c Accession number in predicted proteins library.

^d Probability-based Mowse score of MASCOT software. The numbers after the symbol ">" represent the minimum statistically significant score calculated by the software.

^e Percentage of predicted protein sequences covered by matched peptides via MASCOT.

^f Experimental and theoretical molecular masses of proteins visualized on gels and calculated from amino acid sequences, respectively.