

*Supplementary materials*

## **Molecular Characteristics of the Fatty-Acid-Binding Protein (FABP) Family in *Spirometra mansoni*—A Neglected Medical Tapeworm**

**Table S1.** Primer sets used in qRT-PCR analysis.

**Table S2.** Summary of fatty acid binding proteins in cestodes and trematodes.

**Figure S1.** 3D analysis of SmFABP. (a) Tertiary structure prediction of SmFABP; (b) Quality assessment of tertiary structural models.

**Figure S2.** Conserved motifs of FABP sequence motifs in cestodes and trematodes.

**Table S1.** Primers used in qRT-PCR analysis.

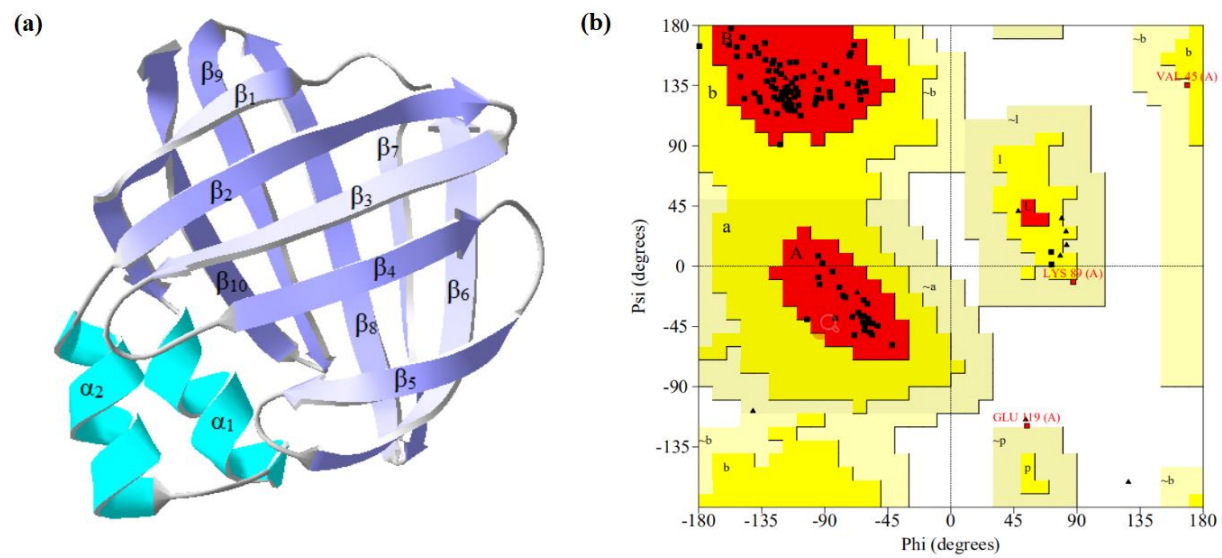
Gene ID	Primer name	Sequence (5'-3')	Product size (bp)
ON933963	ON933963-F	CTGACAATCACGAAGGAGGG AGTG-	132
	ON933963-R	GACTTTACTTTGCGACC	
ON933964	ON933964-F	GCCTGTTGGCGATGGTTA AC-	153
	ON933964-R	CTGTTTCAGCGTCTTGC	
ON933965	ON933965-F	GATGACTATTACATTGGAGGGC	148
	ON933965-R	AACCTTGACGTAGTGTCGAACA	
ON933966	ON933966-F	AGCGTTTGGGTTTAAATCTG	167
	ON933966-R	ATCCATCGTGGTCAAGTCG	
ON933967	ON933967-F	ATTATGGATGCCTTCCTTGG	120
	ON933967-R	CGTCGGTTTCATTGCGTTA	
ON933968	ON933968-F	AGAGCGCCTTGGCTTCAG	179
	ON933968-R	CGTGTCTTCCATCCATCGT	
ON933969	ON933969-F	CACCCACAGTGACCATCG	177
	ON933969-R	CGTCGCTTTCAACGCATCT	
OP146602	OP146602-F	GGGCGATGGCTACAGTCT TCGCGTTCAAC-	183
	OP146602-R	GTAGGTTAC	
OP146603	OP146603-F	ACTGCCGCAAACACCCTG CGCCTTCAAC-	192
	OP146603-R	GCATCTCC	
OP146604	OP146604-F	CTTTGTTGAGTACCTGCGTTGT CTTTGTGAG-	94
	OP146604-R	TACCTGCGTTGT	
OP146605	OP146605-F	CTGACAATCACGAAGGAGGG AGTG-	132
	OP146605-R	GACTTTACTTTGCGACC	
GAPDH	GAPDH-F	AGCAACCTCGTTGATGTCGT TGAATTGAC-	97
	GAPDH-R	CGTGGGTGGAG	

**Table S2.** Summary of fatty acid binding proteins in cestodes and trematodes.

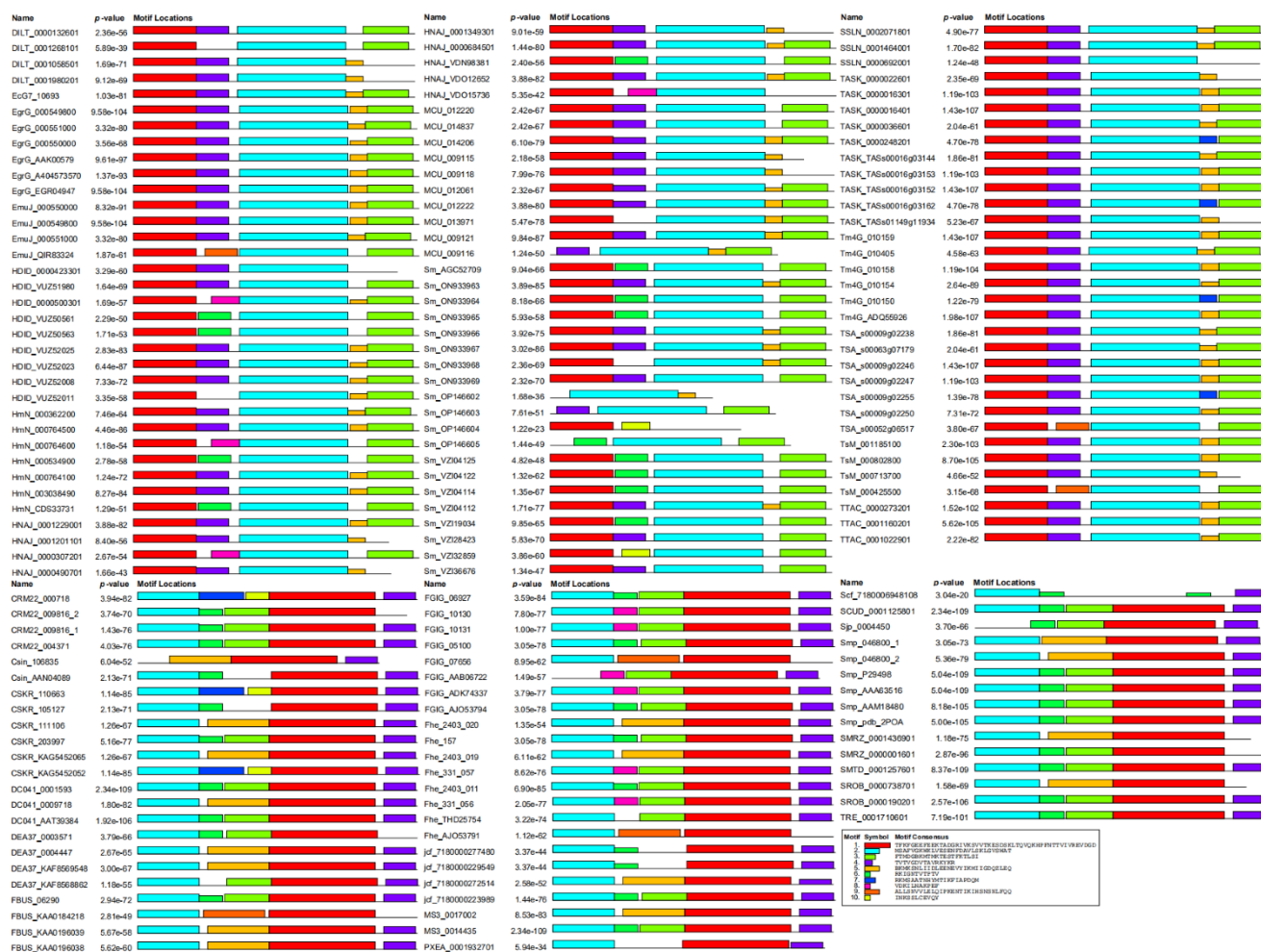
Class	Family	Genus	Species	SS	Sequence ID (Gene)
Cestoda	Diphyllbothriidea	<i>Dibothriocephalus</i>	<i>D. latus</i>	4	DILT_0000132601, DILT_0001268101, DILT_0001058501, DILT_0001980201
		<i>Spirometra</i>	<i>S. mansoni</i>	11	Sm_AGC52709, Sm_ON933963, Sm_ON933965, Sm_ON933966, Sm_ON933967, Sm_ON933968, Sm_ON933969, Sm_VZI04125, Sm_VZI04122, Sm_VZI32859, Sm_VZI36676

Taeniidae	<i>Schistocephalus</i>	<i>S. solidus</i>	3	SSLN_0001728001, SSLN_0001464001, SSLN_0000692001
		<i>E. canadensis</i>	1	EcG7_10693
	<i>Echinococcus</i>	<i>E. granulosus</i>	5	EgrG_000549800, EgrG_000551000, EgrG_000550000, EgrG_AAK00579, EgrG_A404573570,
		<i>E. multilocularis</i>	4	EmuJ_000550000, EmuJ_000549800, EmuJ_000551000, EmuJ_QIR83324
	<i>Taenia</i>	<i>T. asiatica</i>	9	TASK_0000022601, TASK_0000016301, TASK_0000016401, TASK_0000248201, TASK_0000036601, TASK_TASs00016g03152, TASK_TASs00016g03144, TASK_TASs01149g11934, TASK_TASs00016g03162
		<i>T. saginata</i>	7	TSA_s00009g02238, TSA_s00063g07179, TSA_s00009g02246, TSA_s00009g02247, TSAs_00009g02255, TSA_s00009g02250, TSA_s00052g06517
		<i>T. solium</i>	4	TsM_001185100, TsM_000802800, TsM_000713700, TsM_000425500
		<i>T. multiceps</i>	6	Tm4G_010159, Tm4G_010154, Tm4G_010158, Tm4G_010150, Tm4G_010405, Tm4G_ADQ55926
	<i>Hydatigera</i>	<i>H. taeniaeformis</i>	3	TTAC_0000273201, TTAC_0001160201, TTAC_0001022901
Hymenolepididae	<i>Hymenolepis</i>	<i>H. diminuta</i>	9	HDID_0000423301, HDID_0000500301, HDID_VUZ50563, HDID_VUZ50561, HDID_VUZ52025, HDID_VUZ52023, HDID_VUZ52011, HDID_VUZ52008, HDID_VUZ51980
		<i>H. microstoma</i>	7	HmN_000362200, HmN_000764500, HmN_000764600, HmN_000534900, HmN_000764100, HmN_003038490, HmN_CDS33731
		<i>H. nana</i>	7	HNAJ_0001229001, HNAJ_0001201101, HNAJ_0000307201, HNAJ_0001349301, HNAJ_0000684501, HNAJ_VDN98381, HNAJ_VDO15736

Trematoda	Mesocestoididae	<i>Mesocestoides</i>	<i>M. corti</i>	7	MCU_012220, MCU_014206, MCU_009118, MCU_012061, MCU_012222, MCU_013971, MCU_009121,
	Opisthorchiidae	<i>Atriophallophorus</i>	<i>A. winterbourni</i>	3	jcf_7180000277480, jcf_7180000272514, jcf_7180000223989
		<i>Clonorchis</i>	<i>C. sinensis</i>	4	CSKR_110663, CSKR_105127, CSKR_111106, CSKR_203997
		<i>Opisthorchis</i>	<i>O. felineus</i>	4	CRM22_000718, CRM22_004371, CRM22_009816.1, CRM22_009816.2
	Fasciolodae	<i>Fasciolopsis</i>	<i>F. buski</i>	3	FBUS_06290, FBUS_KAA0196039, FBUS_KAA0196038
		<i>Fasciola</i>	<i>F. gigantica</i>	6	FGIG_06927, FGIG_10130, FGIG_10131, FGIG_05100, FGIG_07656, FGIG_ADK74337
			<i>F. hepatica</i>	7	Fhe_157, Fhe_2403_0.19, Fhe_331_0.57, Fhe_2403_0.11, Fhe_331_0.56, Fhe_THD25754, Fhe_AJO53791
	Paragonimidae	<i>Paragonimus</i>	<i>P. westermani</i>	4	DEA37_0003571, DEA37_0004447, DEA37_KAF8569548, DEA37_KAF8568862
	Schistosomatidae	<i>Schistosoma</i>	<i>S. bovis</i>	2	DC041_0001593, DC041_0009718
			<i>S. curassoni</i>	1	SCUD_0001125801
			<i>S. haematobium</i>	2	MS3_0017002, MS3_0014435
			<i>S. japonicum</i>	2	Sjp_0004450, Sjp_TRE_0001710601
			<i>S. mansoni</i>	5	Smp_046800.1, Smp_046800.2, Smp_P29498, Smp_AAM18480, Smp_pdb 2POA
			<i>S. margrebowiei</i>	2	SMRZ_0001436901, SMRZ_0000001601
			<i>S. matthei</i>	1	SMTD_0001257601
			<i>S. rodhaini</i>	2	SROB_0000190201, SROB_0000738701



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