

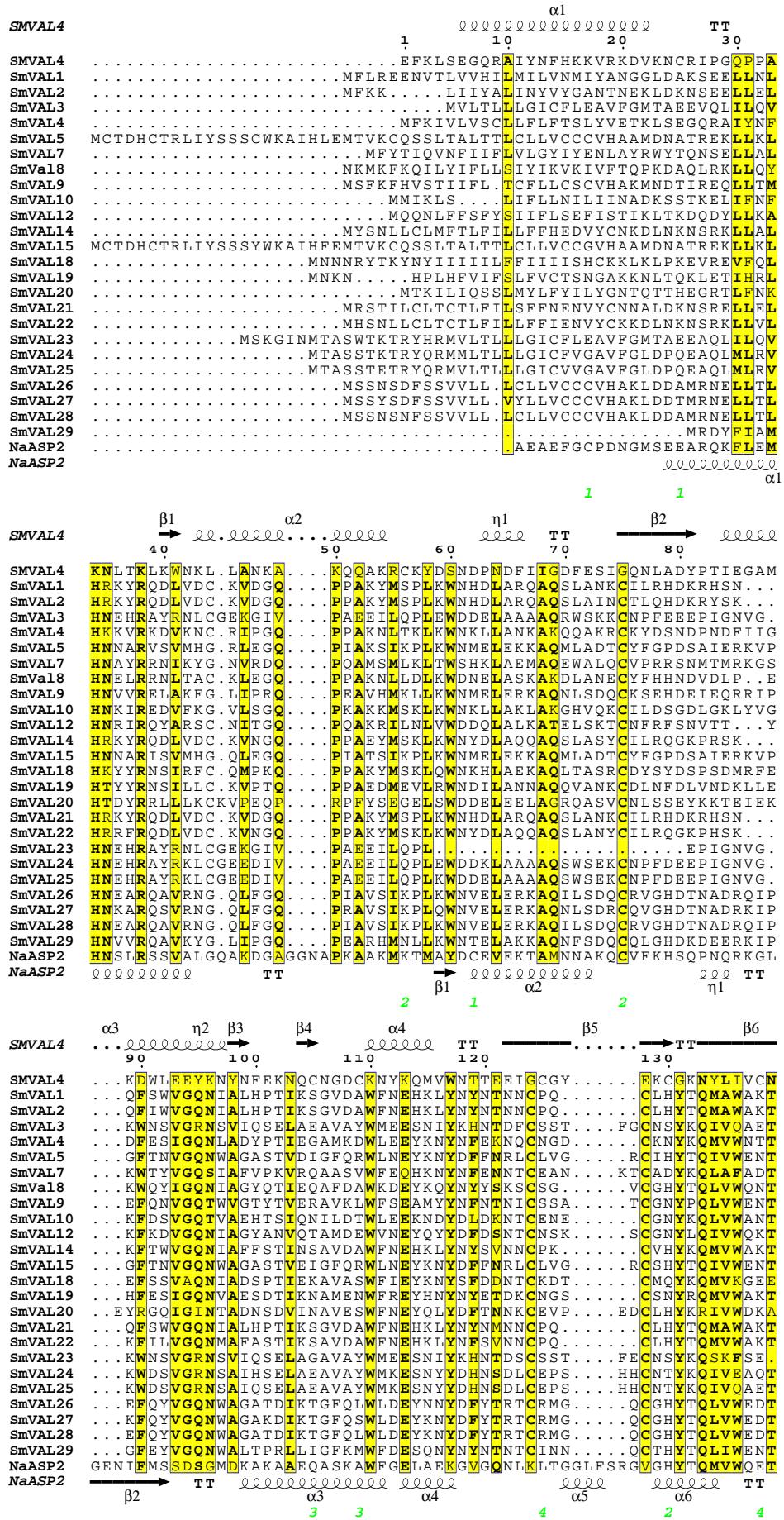
Acta Crystallographica Section D

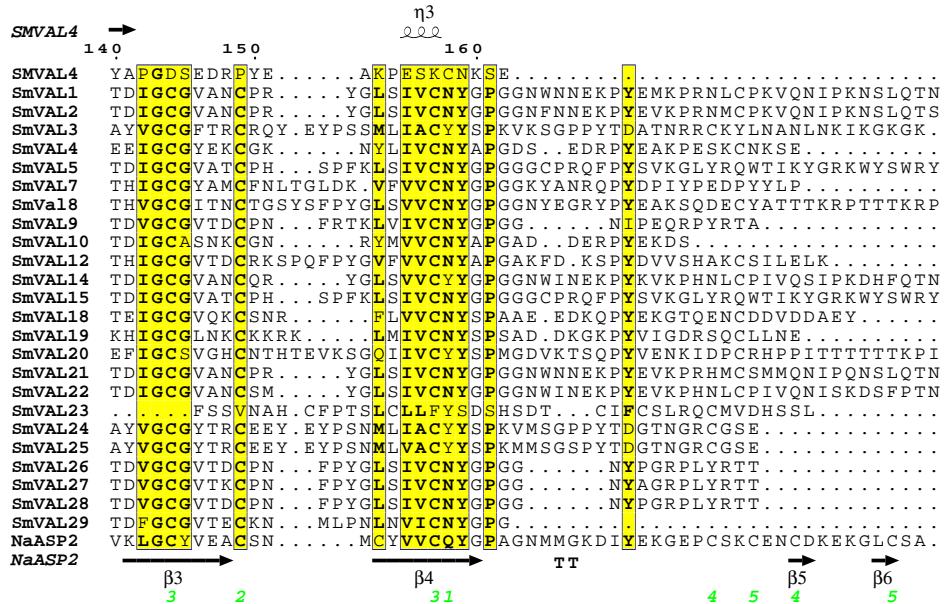
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Supporting information for article:

***Schistosoma mansoni* venom allergen-like protein 4 (SmVAL4) is a novel lipid-binding SCP/TAPS that lacks the prototypical CAP motifs**

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SMVAL4

SMVAL4 SAHTQHGPKPLTQSEERVSTNVQNGRRECNQREQLRSRY.....
 SmVAL1 SAHTQHGPKPLTQSEERVSTNVQNGRRECNQREQLRSRY.....
 SmVAL2 RAHTQHVQKPIKQSQQKKVSWIVQNGRKRDNQRKQSRSPY.....
 SmVAL3
 SmVAL4
 SmVAL5 GRRCRPVYVKQRCNHTNERQLNRTPAIQKKRYKLIKQYLCPNKQKV.....
 SmVAL7
 SmVAL8 TTTKRPSTTTKRPGBTPTQKPGVPKQIPKPIWPSIISTWNNEYATS...
 SmVAL9
 SmVAL10
 SmVAL12
 SmVAL14 RVHTRHGQKSINLREKKG..VKYRPK.....
 SmVAL15 GRRCHREYVKQRCNHTNERQLNQTPVIQTKGYKLIKQYLCPNKQKV.....
 SmVAL18
 SmVAL19
 SmVAL20 TVTRKLQMGPYGRYRCDKCQP.....
 SmVAL21 SAHTQHGQKPIKKSEERVS...
 SmVAL22 RAHTRRGQKSLKQIEKKG..VKYHSN.....
 SmVAL23
 SmVAL24
 SmVAL25
 SmVAL26
 SmVAL27
 SmVAL28
 SmVAL29
 NaASP2
 NaASP2

SMVAL4

SMVAL4 .
 SmVAL1 .
 SmVAL2 .
 SmVAL3 .
 SmVAL4 .
 SmVAL5 .
 SmVAL7 .
 SmVAL8 K
 SmVAL9 .
 SmVAL10 .
 SmVAL12 L
 SmVAL14 .
 SmVAL15 .
 SmVAL18 .
 SmVAL19 .
 SmVAL20 .
 SmVAL21 .
 SmVAL22 .
 SmVAL23 .
 SmVAL24 .
 SmVAL25 .
 SmVAL26 .
 SmVAL27 .
 SmVAL28 .
 SmVAL29 .
 NaASP2 .
 NaASP2

Figure S.1. Comparison of the group 1 SmVALs. The group 1 SmVALs were aligned with clustalW2 and the illustrated secondary structural features are of the coordinates of SmVAL4 and NaASP2 (pdb entry 1u53). The alignment reveals that neither SmVAL4 nor NAASP2 can be accurately used to predict the structures of all the group1 SmVALs. Additionally, CAP tetrad, shown in arrow is conserved in some of the SmVALs. As with figure 2, this figure was generated with ESPript (Gouet *et al.*, 2003). The different secondary structure elements shown are alpha helices as large squiggles labelled (α), 3₁₀-helices as small squiggles labelled (η), beta strands as arrows (β), and beta turns (TT). Identical residues are shown in solid red, and conserved residues are highlighted yellow. The locations of the cysteine residues involved in disulfide bonds are numbered in green

The 29 *S. mansoni* SmVALs are the following: SmVAL1 ([AAY43180.1](#)), SmVAL2 ([XP_002571733.1](#)), SmVAL3 ([AAZ04923.2](#)), SmVAL4 ([XP_002571676.1](#)), SmVAL5 ([ABB88846.2](#)), SmVAL6 ([AAY28955.1](#)), SmVAL7 ([AAZ04924.1](#)), SmVAL8 ([ABW98681.1](#)), SmVAL9 ([XP_002582201.1](#)), SmVAL10 ([ABO09814.2](#)), SmVAL11 ([ABA54555.1](#)), SmVAL12 ([XP_002571731.1](#)), SmVAL13 ([ABB88843.1](#)), SmVAL14 ([XP_002569793.1](#)), SmVAL15 ([XP_002582174.1](#)), SmVAL16 ([XP_002571817.1](#)), SmVAL17 ([XP_002578833.1](#)), SmVAL18 ([XP_002571658.1](#)), SmVAL19 ([XP_002571657.1](#)), SmVAL20 ([CAZ28636.1](#)), SmVAL21 ([XP_002578075.1](#)), SmVAL22 ([XP_002574629.1](#)), SmVAL23 ([XP_002582175.1](#)), SmVAL24 ([XP_002574962.1](#)), SmVAL25 ([XP_002574963.1](#)), SmVAL26 ([XP_002577262.1](#)), SmVAL27 ([XP_002577271.1](#)), SmVAL28 ([XP_002582199.1](#)) and SmVAL29 ([XP_002571340.1](#)).