

Characterization and cellular localization of an SFT-2/Got-1- like a transporter protein of *Leishmania infantum*

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Supplementary Figures

1. T-coffee

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Q9NZ42|PEN2_HU  MNL-----E RVSNEEKLNLCKRYYLGGFAFLPFLWLVNIFWFFREAF LVPAYTEQSQIKGYWRSA
A4HSK3|PEN2_L1 MDKLTSLISVTTSGGLDGAEGTDSQE-----SLCPSLTFKQRMQGCVCVCA
Q9NZ42|PEN2_HU  VGFLFWIVLTSWITIFQIYRPRWALGDYLSFTIP-----
A4HSK3|PEN2_L1  LGILFFVL---SWTVF-----LGDYVFFGMLFTLGSLMCLGGTLFLAGPARQFKSMFNEGRWIASTVYIITM
Q9NZ42|PEN2_HU  -----LGTP
A4HSK3|PEN2_L1  VLTLLCAVLLHSQLLTILMSIIQLLALAWYILSYIPFARDIVKGAFSRLMNR
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2. CLUSTAL Uniprot

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Q9NZ42|PEN2_HU  -----MNLERV-SNEEKLNLCKRYYLGGFAFLPFLWLVNIFWFFREAF L VPA 46
A4HSK3|A4HSK3_LE MDKLTSLISVTTSGGLDGAEGTDSQE-----L CPS 31
Q9NZ42|PEN2_HU  YTEQSQIKGYWRSVAVGFLFWIVLTSWITIFQ----- 79
A4HSK3|A4HSK3_LE LTFKQRMQGCVCVCAALGILFFVL---SWTVFLGDYVFFGMLFTLGSLMCLGGTLFLAGP 88
Q9NZ42|PEN2_HU  -----IYRPRWALGDYLS 93
A4HSK3|A4HSK3_LE ARQFKSMFNEGRWIASTVYIITMVLTLCAVLLHSQLLTILMSIIQLLALAWYIL--- 143
Q9NZ42|PEN2_HU  FTIPLGTP----- 101
A4HSK3|A4HSK3_LE SYIPFARDIVKGAFSRLMNR 163
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Figure S1. T-coffee and CLUSTAL alignment of the human Pen-2 protein and *Leishmania infantum* putative Pen-2 (Got-1)

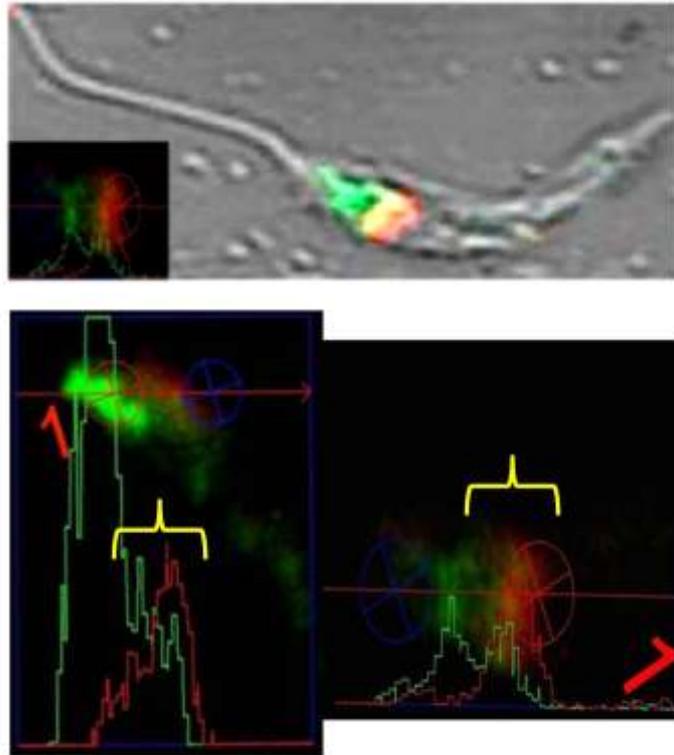


Figure S2. Subcellular localization of presenilin-like and Got-1/Sft2-like protein of *L. infantum* (A). Superimposed images of promastigotes immunolabeled with anti-PS polyclonal rabbit serum anti-synthetic peptide labeled by Alexa 546 (red) and expressing Got1/Sft2-recombinant linked to GFP. (B) Fluorescence intensity histograms of each channel (Red and Green) were performed, tracing a line from the posterior to the anterior region of the parasite. The yellow label indicates fluorescence colocalization.

	Score	Expect	Method	Identities	Positives	Gaps
	32.3 bits(72)	3e-07	Compositional matrix adjust.	19/54(35%)	32/54(59%)	12/54(22%)
Human Pen-2	43					96
Leishmania A4HSK3	28					69

Figure S3: Sequence alignment of human Pen-2 and Leishmania putative A4HSK3 protein using Blastp. Alignment revealed a Pen-2 (DYLSF) conserved motif in the Leishmania Sft-2/Got-1 protein.

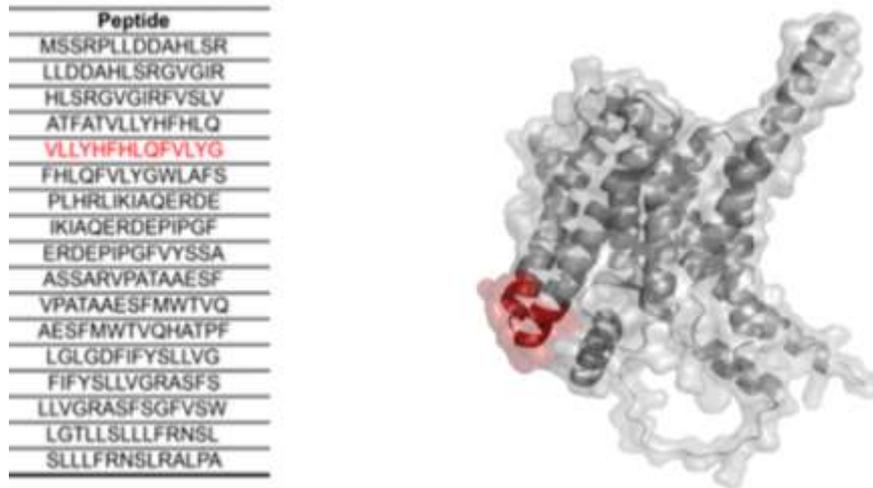


Figure S4: List of epitopes of the presenilin-like protein from *Leishmania infantum* (A4HWP2) identified by Spot-synthesis. The red sequence represents the peptide for rabbit immunization based on the peptide structure, position, and physicochemical properties.

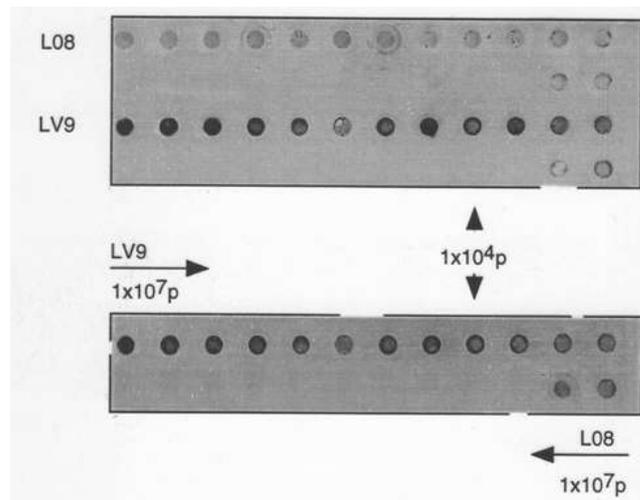


Figure S5: Dot blot analysis of specificity and limiting detection/number of parasites per slot of rabbit serum anti-synthetic peptide (epitope) of *Leishmania infantum* presenelin. Whole-cell extract of *L. infantum* (LV9) and *Trypanosoma cruzi* (LV8). The staining was performed using an anti-rabbit Ig labeled with alkaline phosphatase and chemiluminescence.