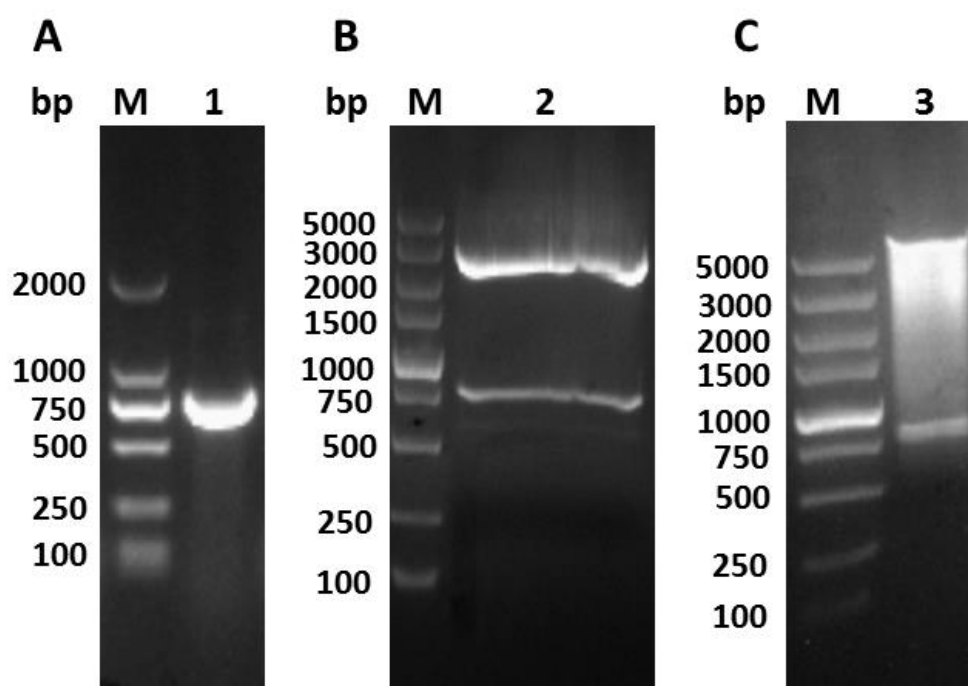


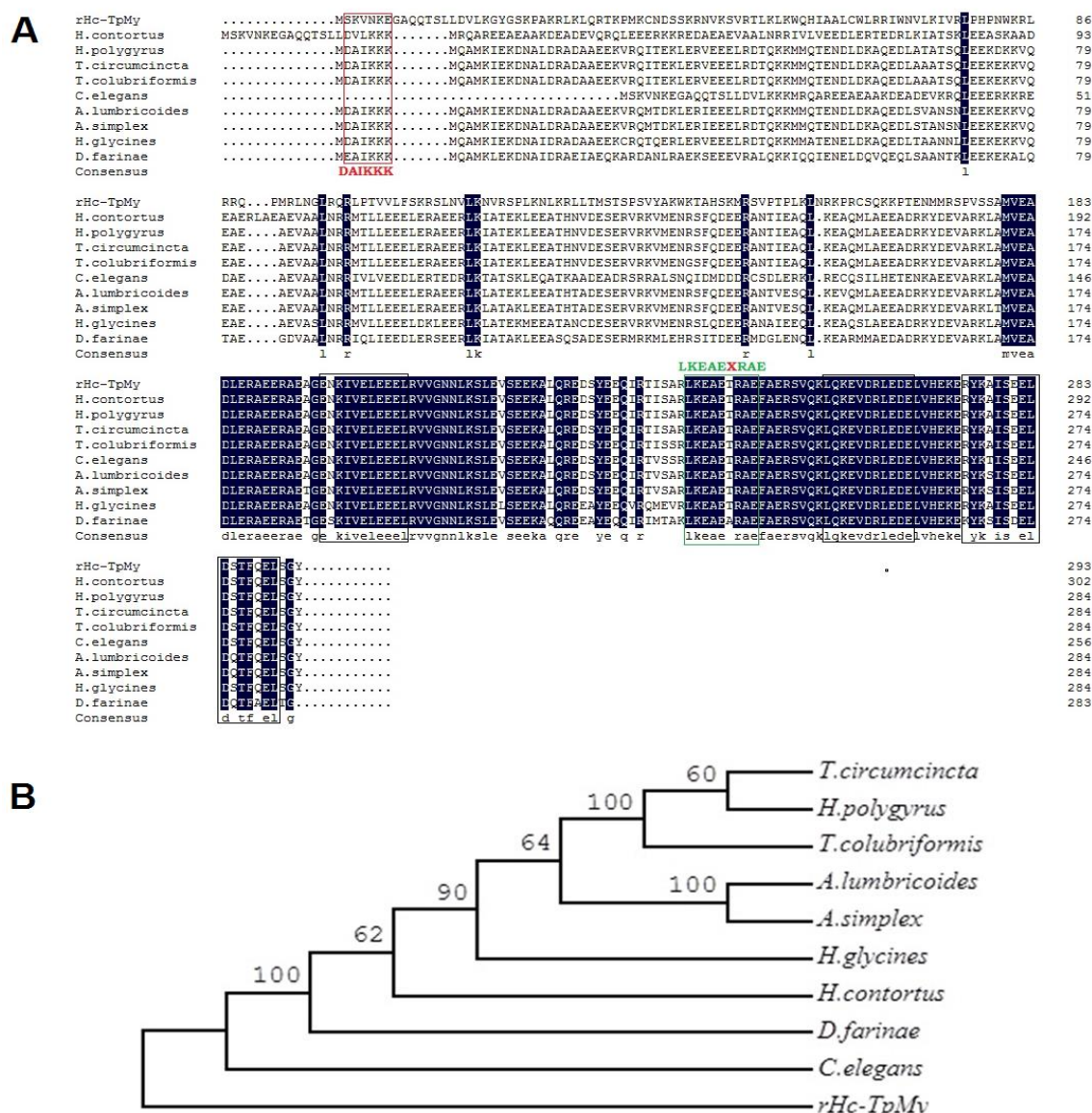
Article

# Tropomyosin: An Excretory/Secretory Protein from *Haemonchus contortus* Mediates the Immuno-Suppressive Potential of Goat Peripheral Blood Mononuclear Cells In Vitro

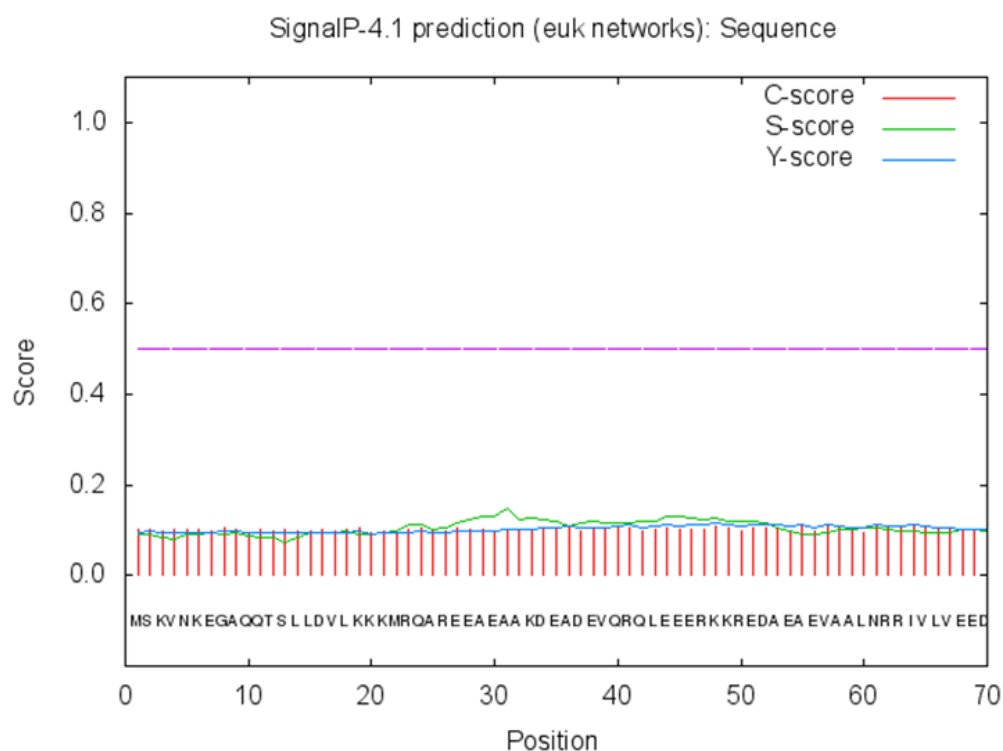
Muhammad Ehsan <sup>1,2</sup>, Muhammad Haseeb <sup>1</sup>, Ruisi Hu <sup>2</sup>, Haider Ali <sup>1</sup>, Muhammad Ali Memon <sup>1</sup>, Ruofeng Yan <sup>1</sup>, Lixin Xu <sup>1</sup>, Xiaokai Song <sup>1</sup>, Xingquan Zhu <sup>2</sup> and Xiangrui Li <sup>1,\*</sup>



**Figure S1.** Cloning and expression of Hc-TpMy gene. (A) Gel electrophoresis of Hc-TpMy indicating 909 bp PCR product. (B) Amplified product cloned into pMD-19T vector. (C) Confirmation of recombinant expression plasmid pET32a verified by restriction digestion with *BamH* I and *Hind* III.



**Figure S2.** Comparison of rHc-TpMy amino acid sequences to that of other nematode species available on GenBank database. **(A)** *Haemonchus contortus* (CDJ92091), *Heligmosomoides polygyrus* (ABV44405), *Teladorsagia circumcincta* (ADB27966), *Trichostrongylus colubriformis* (P15846), *Caenorhabditis elegans* (NP\_001300454), *Ascaris lumbricoides* (ABS82498), *Anisakis simplex* (Q9NAS5), *Heterodera glycines* (AAQ12016), *Dermatophagoides farinae* (AIO08865). The B cell epitopes of *H. contortus* tropomyosin to that of other sequences are shown in black boxes. Points indicate the identical residues with respect to the upper sequence (bold). **(B)** The kinship of Hc-TpMy to that of known nematodes tropomyosins available at GenBank database was evaluated by neighbour-joining method (1000 bootstrap) using MEGA ver. 6.0.



**Figure S3.** N-terminal signal peptide prediction in rHc-TpMy protein. The amino acid sequences of rHc-TpMy (NCBI accession numbers: HF965396) was used to predict N-terminal signal peptides by SignalP 4.1 Server (<http://www.cbs.dtu.dk/services/SignalP/>).



© 2020 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).