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Reply to the Letter “Diagnostic Method to Screen *Taenia solium* Taeniasis Carriers”

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The letter by Mungmunpantipantip and Wiwanitkit [1] has raised some important points for discussion. Although we agree that there may be cross-reactivity in some immunological tests during screening for cysticercosis/*Taenia solium* taeniasis with other common parasitic infections such as echinococcosis and gnathostomiasis, we used the rES33 antigen for the detection of anti-*T. solium* taeniasis-specific IgG antibodies by ELISA for determining the seroprevalence of *T. solium* taeniasis [2]. The main reason for selecting the rES33 antigen for this purpose was based on its specific 267 amino acid peptide sequence in *T. solium* (TSES33 protein: sequence ID: AAO65442.1), which does not show cross-reactivity with proteins from other closely related organisms such as *T. saginata*, *Echinococcus granulosus*, and other organisms that produce similar disease symptoms. An earlier study based on serological diagnostic tests by enzyme-linked immunoelectrotransfer blot assay using recombinant antigen rES33

had shown very high sensitivity (>97%) and specificity (99%) for the diagnosis of *T. solium* taeniasis [3].

Furthermore, our ELISA-based assay for the detection of anti-*T. solium* taeniasis-specific IgG antibodies is intended for use as an initial rapid screening test to screen large numbers of people in field settings such as Ports and Borders Health, and Food Handlers Examination Section in Kuwait where >350 subjects need to be screened almost daily, and the currently used gold standard method (stool microscopy) is time-consuming and lacks sensitivity. We also agree that our assay does not confirm a current infection as it only detects previous exposure to *T. solium*. However, application of ELISA-based detection of anti-*T. solium* taeniasis-specific IgG antibodies will greatly reduce the number of stool samples that will require further confirmation of taeniasis infections in such settings.

References

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- 3 Levine MZ, Lewis MM, Rodriguez S, Jimenez JA, Khan A, Lin S, et al. Development of an enzyme-linked immunoelectrotransfer blot (EITB) assay using two baculovirus expressed recombinant antigens for diagnosis of *Taenia solium* taeniasis. *J Parasitol*. 2007 Apr;93(2):409–17.