Reviewer's report

Title: Characterising the KMP-11 and HSP-70 recombinant antigens' humoral immune response profile in chagasic patients

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Reviewer: Yara Miranda M Gomes

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General Comments:
The manuscript “Characterizing the KMP-11 and HSP-70 recombinant antigens humoral immune response profile in chagasic patients”, is an important contribution for the diagnosis. The authors analyzed the profile of IgG subclasses in this patients by using crude T. cruzi antigen as well as two recombinant proteins, KMP-11 and HSP-70, to determine the relationship with the different phases of Chagas disease. However, there are some issues to be addressed and reviewed/revised before publishing the same.

Minor essential revisions

Methods
Page 8, Detecting anti-T. cruzi IgG isotypes by ELISA
- What the quantity of antigens used to sensitize the plates? According to authors "A 0.1 mg antigen concentration for lysate and 0.5 mg... was used in the ELISA..." This not clarify the quantity of antigen/well. The concentration was by ml, ml? What the volume used to each well?

Page 11, 1th paragraph. “The T. rangeli (TrHSP-70) recombinant HSP-70 protein was assayed...". I suggest: The TrHSP-70 recombinant protein was assayed...

Discussion
IgG subclasses were measured against all antigens used in this work to determine the relationship with different phase of disease (prognostic). In the article (Chagas’ disease: IgG isotypes against cytoplasmic (CRA) and flagellar (FRA) recombinant repetitive antigens of Trypanosoma cruzi in chronic chagasic patients. Verçosa AF, Lorena VM, Carvalho CL, Melo MF, Cavalcanti MG, Silva ED, Ferreira AG, Pereira VR, Souza WV, Gomes YM, J Clin Lab Anal 2:271-276, 2007) the authors showed the predominance of IgG1 and IgG3 in chronic patients by using two recombinant antigens specific to T. cruzi. This must be included in the discussion to enrich the work.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare that I have no competing interests.