Reviewer’s report

Title: Thymosin β4 alleviates renal fibrosis and tubular cell apoptosis through TGF-β pathway inhibition in UUO rat models

Version: 1 Date: 05 Sep 2016

Reviewer: Elisavet Vasilopoulou

Reviewer’s report:

The authors have extensively revised the manuscript and added important data assessing the effect of TB4 in tubular epithelial cells in vitro. These changes have significantly improved the manuscript. Nevertheless, there are some issues that need to be addressed.

1. There is still important information missing from the methods:
   a. No methods are detailed for any of the apoptosis methods in vitro or in vivo (TUNEL methods, antibodies used for Cleaved Caspase 3, Bax, Bcl-2). What criteria did the authors use to assess apoptosis by morphological analysis of cell nuclei?
   b. The n number for the in vitro studies needs to be specified.
   c. Could the authors provide more details for the tubular epithelial cells they are using? Is this a cell line, or primary cells? Are they human, rat, mouse-derived?

2. Could the authors justify the dose of TB4 used? 1 or 5ug/ml seems quite low compared to 100ng/ml that has been previously reported in literature.

3. Figure 5A: The pictures are very small and it is difficult to see the TUNEL positive nuclei.

4. Figure 6A: A better quality picture is needed that can allow the reader to assess the morphological changes indicating cell apoptosis.

5. The references to Figure 5 in the text do not match the numbering of the panels in the Figure. There are also many typos that need to be addressed.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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