Reviewer’s report

Title: HLA and proteasome expression body map

Version: 1 Date: 15 Jan 2018

Reviewer: Eric G Blair

Reviewer’s report:

In this revised paper, the authors present their conclusions on expression of HLA and certain proteasome genes in a wide variety of normal human tissues. In general, their conclusions reached by applying RNA-Seq methods are broadly those that would have been expected after many years of publications using conventional antibody-based and biochemical methods. However the RNA-Seq approach is unbiased and offers strengths that previous methods do not have. Therefore the paper could become a useful reference for immunobiologists. The authors also appear to have made a reasonable attempt at responding to the previous reviewers' comments.

Some minor points:

1. To tie in the data shown here with the immunological literature, the previous gene alias for PSMB8 and PSMB9 should be given, namely LMP2 and LMP7 respectively.

2. The authors have, of course, only given a small snapshot of genes whose products are involved in antigen processing and presentation. They could, for example, have profiled TAP1 and TAP2, the peptide transporter genes. Interestingly TAP1 and LMP2 share a common bidirectional gene promoter and so it would be very interesting to know if these transcripts are coordinately regulated. It is accepted that this is another piece of work but this reviewer considers that it would greatly enhance the paper. TAP2 and Tapasin would also be interesting.

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

Yes

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 recommend additional statistical review

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