Reviewer's report

Title: FAM168A participates in the development of chronic myeloid leukemia via BCR-ABL1/AKT1/NFκB Pathway

Version: 0 Date: 13 Feb 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

Statistics - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

Yes - the author's interpretation is reasonable
OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: This study used gene expression, protein expression and immunoprecipitation, as well as animal models to investigate the role of TCRP1 in the key AKT1/NFkB mitogenic signalling pathway in CML.

Overall the study was reasonably well conceived and written up, although not without several minor issues. The Methods section was very comprehensive, which is to be commended. The figures are clear, but again minor issues will need to be corrected before being suitable for publication (details below).

ADDITIONAL REQUESTS/SUGGESTIONS:

Abstract

P2L9: what is meant by 'therapeutic effects of the disease'? Also, are the authors implying that current TKI strategies, in which the majority of patients presenting in CP will experience deep molecular response, is somehow 'unsatisfactory'? This may need to be qualified.

P2L25: sentence does not make grammatical sense.

P2L53: use HGNC approved gene nomenclature: FAM168A; TCRP1 may be given as a legacy name, but the current approved gene name must be used; also BCR-ABL1.
Background

P4L17: the sudden switch into discussing childhood leukaemia is potentially confusing; suggest discussing CML in general and breaking metrics into adults and children.

P4L47: be consistent in gene/protein nomenclature: BCR-ABL1; also, to be accurate, the Ph chromosome produces a fusion gene, which in turn encodes the BCR-ABL1 fusion protein.

P4L53: probably worth noting the p190 (e1a2) variant.

P5L14: 'is discovered'; always use past-tense.

P5L17: 11q13.4 is a chromosomal location, not a chromosome.


P13L45: what does 's' denote in the data expression? Standard deviation (SD)?

P18L15: is it appropriate to use results of experiments to support your argument without showing the data? Either include the data or remove the reference to it.

P19L12: this sentence does not make grammatical sense; also, it seems to make mention of children with CML being included - is this correct?

Figure 1: how many technical replicates used? Also, don't use 'average' in technical language, specify median or mean, as appropriate. Also, it needs to be clear what the error bars represent (SD or 95% CI? SEM would not be appropriate).

Figure 2: again, number of technical replicates must be given.

Figure 4: better descriptive legend needed. What does the 'input' lane represent?

Other comments:

Was the use of paediatric-derived normal PBMC an appropriate control for adult CML?

Note: This reviewer report can be downloaded - see attached pdf file.
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 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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