Reviewer’s report

Title: Eukaryotic Elongation Factor-2 Kinase Expression is an Independent Prognostic Factor in Colorectal Cancer

Version: 1 Date: 29 Mar 2019

Reviewer: Zhang Xiaoli

Reviewer’s report:

In this paper, the authors used 20 patients to investigate the EEF2K gene expression at mRNA and protein level comparing the tumor to adjacent normal. After they found there was decreased expression of EEF2K in tumor, they used another cohort of 151 patients to test their hypothesis that reduced EEF2K associates with worse survival. The authors also used the TCGA CRC data to support their finding that reduced EEFK2 expression is associated with worse survival. However there are some major issues the authors didn't cover:

Was the expression of EEF2K correlated with patients' age, gender, especially patient clinical characteristics such as tumor stage, node status and metastasis status in the cohort of 151 patients? Without answering this, it is not appropriate to conclude that EEF2K is an independent prognostic factor.

On page 13 line 231-234 the sentence is confusing "that patients in the low expression group had worse overall survival in obvious than those in the high expression group in patients with Stage IV". Did the authors mean that the tested patients were all at stage IV, or patients with high expression were at stage IV? Please clarify.

The authors used the TCGA data to validate their finding, however the result is not convincing. What is the rational for only using patients with high and low expression? A survival analysis using all the data should be done instead of only using the patients with the highest and lowest expression or with a specific stage. Correlation of EEF2K with patient tumor stage should be tested to indicate whether the low expression group was patients with high tumor stage. In addition, a comparison between tumor and normal is needed to confirm the author’s point that EEF2K was decreased in CRC.

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.

No

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  
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