Reviewer’s report

Title: Autologous anti-SOX2 Antibody Responses Reflect Intensity but not Frequency of Antigen Expression in Small Cell Lung Cancer

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Reviewer: Stefan Eichmuller

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In this study, Atakan and coworkers studied the expression of SOX2 in SCLC tumor specimen and seroreactivity of the corresponding patients to SOX2 protein. While both protein expression intensity and frequency of positive tumor cells did not correlate with clinical outcome, the presence of anti-SOX2 antibodies in the patients’ sera correlated with stage. The presence of serum antibodies correlated with staining intensity.

The study is well designed, the number of samples is appropriate, and the conclusions drawn are sound.

I have only few remarks.

Major Compulsory Revisions:
1) Seropositive due to ELISA measurement: In Material and Methods the calculation for the cut-off is given (mean of controls + 2SD), but the actual values are not given. This should be mentioned in the legend of Table 2 and the corresponding text (Results, first chapter, line 5).

Furthermore, how many healthy controls appear positive when following this equation?

Minor Essential Revisions:
1) page 3, correct spelling mistake: „titered“ instead of „tittered“ (2 times)
2) Table 1, heading of column “Median Survival”: give measurement units
3) Table 2, heading of column “SOX2 staining frequency”: add “[%]”
4) Change order of Figures (Fig. 2 appears first)
5) Page 7, line 4: refer to Table 1.
6) Page 7, Discussion line 8: delete “are”

Discretionary Revisions:
It would be nice, if the mentioned Kaplan Meyer plot would be presented.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.

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