Reviewer's report

Title: NK-like homeodomain proteins activate NOTCH3-signaling in leukemic T-cells

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Reviewer: Dirk Geerts

Reviewer's report:

Nagel et al report on a role for the MSX2 homeobox transcription factor in Notch3-signaling in hematopoietic cells - and early T-cell development, and suggest a role for MSX1 in leukemogenesis, in cooperation with other NK-like homeobox genes.

This manuscript contains several interesting findings about MSX2 in hematopoietic differentiation and oncogenesis that merit publication. However, an exact hypothesis is not presented at the start of the manuscript, and the data are presented in a manner that precludes the appreciation the data deserve. Most experiments described are only described in a fleeting manner, confusing this reader about the main message of the manuscript.

Thorough re-writing of the manuscript would be beneficiary to the manuscript, focusing on the main message the authors would like to bring across to the readers.

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