

Reviewer's report

Title: Psoriasin (S100A7) expression is altered during skin tumorigenesis

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Reviewer: joost schalkwijk

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

This paper gives an immunohistochemical description of psoriasin localization in various tumor stages. An interesting finding is the notion that psoriasin expression appears to be an intrinsic property of the keratinocyte (at a certain differentiation state), rather than that it is induced by the surrounding infiltrate.

Directionary revisions

- The data do not contain novel findings that would increase our knowledge on the biological function of psoriasin, but could certainly be interesting from a diagnostic point of view. I wonder if the authors could elaborate more on its potential use; would it have prognostic and/or therapeutic consequences for the patients to have a more refined grading of cutaneous SCC ?
- I am not sure if psoriasin is a secreted protein; the original papers from Celis'group call it a partially secreted protein, with an unknown secretory route (it lacks a signal peptide).
- Earlier this year, van Ruissen et al (FASEB J, 2002, 16:246) have reported expression of psoriasin in actinic keratosis using SAGE library analysis of skin biopsies. In this study several genes of the EDC complex on chromosome 1q were found upregulated. This might be worth discussing.

Compulsory revisions

Figure A does not contain normal skin, but has a small piece of apparently unaffected skin adjacent to the tumor. A picture of normal skin with appendages (sweat glands, hair follicles and sebaceous glands) should be included; from figure 1G and H it is difficult to see what structures are positively stained. The lower structures on fig 1G are supposed to be an appendage: but what is it?. The H&E picture is not convincing, it could be a piece of tumor. The structure at the right could be a BCC cell nest with squamous differentiation (as mentioned in the text for one BCC).

There is a lot of nuclear staining; is this an artifact? psoriasin is supposed to be cytoplasmic. Please clarify.

In figure 2A statistical analysis is done using a non-parametric test, which is appropriate. Did the authors

correct for multiple comparison? (e.g. Bonferroni's correction)

Competing interests:

None declared.