Reviewer's report

Title: An association of a simultaneous nuclear and cytoplasmic localization of Fra-1 with breast malignancy

Version: 1 Date: 19 October 2006

Reviewer: SEkhar P.M. Reddy

Reviewer's report:

General
In this manuscript, the authors demonstrated an association of Fra-1 expression with human breast malignancy in clinical samples. There is a differential staining of Fra-1 antigen in epithelial cells: in benign malignant cells FRA-1 antigen is localized in the nucleus, while in breast carcinomas the antigen present both in nucleus and cytoplasm. The authors propose that a cytoplasmic localization of FRA-1 may be indicator for the diagnosis for the breast cancer. Since several reports demonstrated that FRA-1 regulates breast epithelial cell motility and invasion, the results of the present study performed in human tumor sections is of interest and of significance.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Major Comments:

Diagnosis of breast cancer was established long ago. Thus, the authors should change or modify their conclusions in the abstract as “FRA-1 protein levels in the cytoplasm may be an indicator for the grading of human breast cancer”.

1. Authors should include immunohistochemistry with non-specific antibody, such as IgG, in benign and breast cancer tissues performed.
2. Provide more specific details of immunohistochemistry. For example, in the case of antigen retrieval, how long was the microwave treatment, in what buffer it was performed, etc.
3. Provide the names of people whom performed the double blinded analysis of tumor sections stained with antibodies.
4. The authors should cite previous reports by Ana-Maria Bamberger et al, published in Horm Res 2000;54:32–37 and Int. J. Cancer (Pred. Oncol.): 84, 533–538 (1999). The results of the present study should be discussed in the context of the results of these studies which also performed in the breast tissues.
5. Fig. 2: Panel A and panel C apparently show the nuclear staining of FRA-1, while panels B and D display both nuclear and cytoplasmic staining. Clarify!

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Minor:

6. Methods should be “Methods”.
7. Reference 37 was quoted wrongly in the first para of the Discussion section.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being published

Statistical review: No

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