Reviewer's report

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

Version: 2 Date: 23 November 2006

Reviewer: Dany Chalbos

Reviewer's report:

General
Several points were clarified in the revised manuscript. However I am still not convinced that data fully justifies the title and conclusion.

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

Negative control is only shown for a benign breast tumor. To test the specificity of the cytoplasmic immunostaining in breast cancer, at least a negative control with non-specific immunoglobulin of a serial section of a carcinoma showing high Fra-1 cytoplasmic staining should be shown. In addition, whether cytoplasmic labelling is eliminated or not by adding the Fra-1 peptide or using preabsorbed serum should be tested.

How Fra-1 are staining scores evaluated in table 2? Is a strong staining detected in all sections with more than 75% positive nuclei and conversely a weak staining detected in all sections with less than 75% positive nuclei?

The authors show that Fra-1 expression level was higher in cancer cells than in adjacent peritumoral tissues (figure 3). They also state (end p10, last sentence) that Fra-1 staining tends to be correlated with the differentiation of breast carcinoma. How was differentiation estimated (histological grading)?

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

In reference 36, Fra-1 mRNA level but not Fra-1 protein expression was measured in breast cancer cell lines.

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:

The reviewer works on Fra-1