Reviewer's report

Title: Differential CARM1 Expression in Prostate and Colorectal Cancers

Version: 2 Date: 4 March 2010

Reviewer: Tatsuo Ito

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Review of Differential CARM1 Expression in Prostate and Colorectal Cancers

According to the reviewers, most compulsory revisions were scrutinized and revised.

The main massage of this article has not changed. It shows that CARM1 expresses highly at colorectal cancers tissues, in contrast to the expression at prostate and breast cancer, by tissue micro array. These features can also be seen in cell-lines and clinical samples. The function of CARM1 as transcriptional regulator was studied in prostate cancer cell-line, using promoter assays, which were previously reported. The function of CARM1 as transcriptional regulator was also compared between prostate and colorectal cancer cell-lines.

Data of Ch-IP study was added, and helped elucidate the function of CARM1 as transcriptional regulator. This answered to the major compulsory revision A. I hope further reports from authors will answer the question for major compulsory revision B.

As for minor compulsory revisions

A. The results of luciferase assays are acceptable. But, authors used different kinds of cells, which have different CARM1 expressions in luciferase assays. In addition to the overexpression of CARM1, knocking out of CARM1 still seems to have equal outcome in each cell-lines. According to the letter from authors, they seem to have a trouble at knocking out CARM1 by siRNA oligonucleatides. Fortunately, authors have a good system to transfect plasmid. RNA silencing system using shRNA plasmid might be another way to knock out CARM1 expression.

B. In this article, the authors conclude, “CARM1’s role is mainly linked to the p53 and NF-kB response in non-nuclear receptor mediated cancer development”. With only the data from luciferase assay, it is not enough to make the conclusion. Authors need to show some biological evidences of p53 and NF-kB mediated cancer developments.

As for discretionary revisions, the answer from authors was acceptable.

Upon my review about this article, acceptance should be decided upon the minor change at conclusion.
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests' below.