Reviewer's report

Title: miR-320b suppresses cell proliferation by targeting c-Myc in human colorectal cancer cells

Version: 2
Date: 6 February 2015
Reviewer: Laura Gatti

Reviewer's report:

COMMENTS FOR THE AUTHORS

Increasing numbers of reports implicate an aberrant expression of certain miRNAs, including miR-320b, in tumor growth, carcinogenesis or response to chemotherapy in different malignancies. The down-regulation of miR-320b appears to negatively regulate the expression of different genes, including c-Myc, a factor involved in many cellular processes, specifically tumor cell growth and proliferation. The present study shows that the expression of miR-320b suppresses cell proliferation by targeting c-Myc in human colorectal cancer cells.

Although the preliminary hypothesis of the present paper could be of some interest, the study has some evident weaknesses, related to the following specific issues:

1. Major Compulsory Revisions

• The quality of written English is not acceptable in the present form. Language correction is required for the whole manuscript. Please, pay attention not only to mis-spell but especially to grammatical and syntax errors and how sentences are arranged.

• This study has an evident weakness related to the data presented in Western blot analysis reported in Figure 4D and 5A. In particular, the description of results obtained for the expression of c-Myc protein appears to be discordant between the two figures, for both cell lines. The down-regulation of c-Myc protein levels in cells transfected with mir-320b mimics as compared to negative-control transfected cells is evident in Figure 4D but not in Figure 5A. Densitometric analysis must be provided. Besides, the original image files with the whole nitrocellulose membrane are needed in order to check the equal loading.

• With respect to Figure 5A, besides protein-extract from negative-control transfected cells, it is needed that Authors provide samples deriving from:
  - empty vector pGL3 alone transfected cells
  - empty vector pGL3 plus negative control oligonucleotide transfected cells
  - vector pGL3-c-Myc alone transfected cells

• With respect to Figure 5B, please provide explanation for the reported “c-Myc si” bars. The relative legend doesn’t comply with the Figure 5B.
2. Minor Essential Revisions

3. Discretionary Revisions

**Level of interest:** An article of limited interest

**Quality of written English:** Not suitable for publication unless extensively edited

**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