

Answering Reviewers

Comment: This study investigated the role of lncRNA-ATB in HCC. Overall, this is a clear and well-written manuscript. The methods are generally appropriate. This study found novel link between lncRNA-ATB and autophagy. The authors indicated that lncRNA-ATB promote autophagy via Atg5, but not in Atg3, Atg7, Atg10 and Atg12. Why do authors analyze these autophagy components, but not in ATG16L1 (interact with ATG5-ATG12 complex)? Authors should discuss this point.

Response: Thank you for your review. And your suggestion is very important for improving our study. When discuss the the mechanism of autophagosome formation, it is critical to understand the asymmetric features of the autophagosomal membrane. Atg12-Atg5-Atg16(L) localizes on the outer surface of the isolation membrane, which is important for Atg8/LC3-PE conjugation. This complex is present on the outer side of the isolation membrane and is essential for proper elongation of the isolation membrane. So as your suggestion, it's necessary to examine the expression of ATG16L regulated by lncRNA-ATB. we then additionally detected the expression change of ATG16L in the Figure5 A and B. And we found that overexpression of lncRNA-ATB didn't significantly influence ATG16L expression as obviously as ATG5. So we think that lncRNA-ATB promotes autophagy primarily via Atg5.