

Thank you for the reviewer comments. Those comments are all valuable and very helpful for revising and improving our papers. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are made in yellow in the paper. The main corrections in the paper and responds to the reviewer's comments are as following:

1. **Patient recruitment and ethical statements were absent.**

Answer: Thanks for the reviewer advice. We have added the Ethical statement in the revised manuscript.

Each patient before enrollment in the study had provided written and informed consent. The experimental protocol has been approved by the ethic committee of Shanghai General Hospital.

2. **Methods of in situ hybridization was absent**

Answer: Methods of in situ hybridization had added

In situ hybridization

The oligonucleotide probe of mir-301a was purchased from Wuhan Boster Biological Technology. The sequence of mir-301a probe was 5'-TTTGACAATACTATTGCACT-3'.

PDAC tissue slides were deparaffinized and digested with 20 µg/mL proteinase K in pre-warmed 50 mM Tris for 20 min at 37°C. Rinse slides 5x in distilled water. Immerse slides in ice-cold 20% (v/v) acetic acid for 20 sec. Dehydrate the slides by washing for approximately 1 min per wash in 70% ethanol, 95% ethanol and 100% ethanol, then air dry. Add 100 µL of hybridization solution to each slide. After that, the slides were prehybridized in a hybridization solution at 57°C for 2 hours. Tissues were hybridized overnight in the presence of 10ng 3'-5' DIG-labeled miR-301a-3p LNA probes at 50°C. Slides were washed twice stringently. Transfer to a humidified chamber and add 200 µL blocking buffer to each section (MABT + 2% BSA). Block for 1-2 h at room temperature.

Add the anti-label antibody at the required dilution in blocking buffer and incubate for 1–2 h at room temperature and an immunological reaction was carried out by using the rabbit antibody against digoxigenin and alkaline phosphatase , according to the manufacturer's recommendation. Each side was assigned a score for intensity and staining positive pattern.

### 3. Provide information on TP63 in Introduction

Answer: As suggested by the reviewer, we have provide information on TP63 in introduction.

TP63, a member of the p53 family, not only induces transcription of canonical p53 targets but is also a master regulator of epithelial cells. There are many isoforms of p63, including the major types TAp63 and  $\Delta$ Np63. These two isoforms exhibit unique biological functions by regulating their own distinct target genes. Data from studies of different cancer environments suggest that TAp63 has tumor suppressor type properties and that  $\Delta$ Np63 has mainly oncogenic properties. Expression of p63 in pancreatic cancer is not well recognized and its role in tumor progression needs further researching.

### 4. Figure 7. In situ hybridization. It would be helpful to add arrow or arrowhead to indicate positive signals

Answer: Thank you for your suggestion. We have added arrows to indicate positive signals.