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LncRNA ZEB2-AS1 promotes pancreatic cancer cell growth and invasion through regulating the miR-204/HMGB1 axis

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Abstract

Recently, lncRNA ZEB2-AS1 was identified as a lncRNA that promoted cancer progression. However, the biological function and the underlying mechanism of ZEB2-AS1 in pancreatic cancer had not been reported. In the current study, we revealed that the expression level of ZEB2-AS1 was elevated in pancreatic cancer cell lines and tissues. ZEB2-AS1 inhibition decreased cell growth and invasion in pancreatic cancer. Mechanismly, ZEB2-AS1 exerted as a ceRNA and negatively regulated miR-204 expression. In addition, HMGB1 was identified as a down-stream target of miR-204. The miR-204/HMGB1 axis mediated ZEB2-AS1's effect on pancreatic cancer. Our findings revealed that lncRNA ZEB2-AS1 may be a candidate prognostic biomarker and a target for new therapies in pancreatic cancer patients.

Keywords: lncRNA ZEB2-AS1, miR-204, HMGB1, pancreatic cancer

1.Introduction

Pancreatic cancer is an extremely aggressive solid tumor and often develops local invasion and early metastasis. Notably, pancreatic cancer causes approximately 330000 deaths per year and pancreatic cancer patients have extremely poor prognosis and clinical outcome, with overall