

عنوان مقاله:

LncRNA XIST promotes the progression of laryngeal squamous cell carcinoma via sponging miR-125b-5p to modulate TRIB2

محل انتشار:

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خلاصه مقاله:

Introduction: In our study, we investigated the expression of XIST in LSCC cells and tissues and its functional role in cell proliferation, anti-apoptosis, migration and invasion from LSCC cells. Meanwhile, the relationship between XIST, miR-125b-5p, and TRIB2 was also revealed, which may provide a good target for the treatment of LSCC associated with the XIST/miR-125b-5p/TRIB2 axis. **Material and Methods:** Transduced cells (2.5×10^3 cells/ $100 \mu\text{l}$ /well) were prepared for growth analysis and seeded in 96 well plates. Cells were cultured for 24, 48, and 72 h until $10 \mu\text{l}$ of CCK-8 reagent (DOJINDO, Kumamoto, Japan) was added to each well and cultured for an additional 4 h. Optical density (OD value) was measured at an absorbance of 450 nm using a microplate reader. **Results:** LSCC cell lines (AMC-HN-1 and MFE cells) and nasopharyngeal epithelial cells (NP69 cells) were also selected to examine XIST expression. qRT-PCR analysis data showed higher XIST in LSCC cells compared to NP69 cells. In summary, we found that XIST as an oncogene in LSCC may be an indicator of cancer progression. **Conclusion:** In this study, lncRNA XIST and TRIB2 overexpression and miR-125b-5p downregulation were observed in LSCC tissues and cells. High-grade XIST often indicates poor prognosis in LSCC patients. Inhibition of XIST slows cell growth and impairs cell metastasis and anti-apoptotic effects. Both XIST and TRIB2 have binding sites for miR-125b-5p, which was predicted for the first time in our study.

کلمات کلیدی:

lncRNA, laryngeal squamous, miR-125b-5p

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