

## عنوان مقاله:

MiR-۱۲۵b inhibits stromal cell proliferation in giant cell tumor of bone by targeting parathyroid hormone ۱ receptor

## محل انتشار:

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## خلاصه مقاله:

Objective(s): miR-۱۲۵b has been identified as a tumor suppressor in many tumors, but its role in giant cell tumor (GCT) of bone remains poorly understood. The current study aimed to investigate the potential role and mechanism of miR-۱۲۵b in GCT. Materials and Methods: Expression levels of miR-۱۲۵b in GCT tissues were determined using RT-PCR. The cell proliferation was surveyed by direct cell counting, MTS and CCK-۸, and the apoptotic cells were evaluated by Annexin V-FITC and propidium iodine staining assay. The target gene expression was determined using RT-PCR and western blot. Parathyroid hormone ۱ receptor (PTH1R) 3'-UTR was cloned into luciferase reporter plasmid to confirm direct targeting. Results: We found that miR-۱۲۵b was significantly down-regulated in GCT tissues. Using both gain- and loss-of-function analyses, we further revealed that miR-۱۲۵b suppressed GCT stromal cell proliferation and induced cell apoptosis. Furthermore, we revealed that PTH/PTHrP type ۱ receptor is a direct and functional target of miR-۱۲۵b. Conclusion: Our results suggest that miR-۱۲۵b acts as a tumor suppressor through suppression of the PTH1R/RANKL signaling pathway. These findings contribute to our understanding of the functions of miR-۱۲۵b in GCT

## کلمات کلیدی:

Cell Proliferation, GCT, miR-۱۲۵b, PTH1R, RANKL

## لینک ثابت مقاله در پایگاه سیویلیکا:

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