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Long noncoding RNA PCAT-1 acts as an oncogene in

osteosarcoma by reducing p21 levels

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Running title: LncRNA PCAT-1 promotes progression of osteosarcoma

Abstract

Long non-coding RNA (lncRNA) is emerging as a critical regulator in multiple cancers. Recently, lncRNA PCAT-1 was found to be up-regulated in prostate cancer and hepatocellular carcinoma, exerting oncogenic effects. However, the biological function and regulatory mechanism of PCAT-1 remain unclear in osteosarcoma (OS). In this study, we reported that PCAT-1 expression was also upregulated in OS tissues, and its overexpression was remarkably associated with tumor size, Enneking stage, tumor node metastasis (TNM) stage and metastasis in patients with OS. Knockdown of PCAT-1 suppressed OS cells proliferation, migration and invasion *in vitro*, and inhibited the tumorigenicity of OS cells *in vivo*. Mechanistic investigations revealed

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