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**摘要:**

**摘要 目的:** 探讨人肿瘤转移抑制基因KiSS-1对人骨肉瘤MG63细胞侵袭、迁移能力的影响。**方法:** 构建KiSS-1表达质粒pSNAV2.0-KiSS-1。pSNAV2.0-KiSS-1质粒转染骨肉瘤MG63细胞, 经G418筛选稳定表达KiSS-1基因的MG63细胞。应用real-time PCR、Western blotting检测KiSS-1 mRNA和蛋白的表达。Transwell小室法检测MG63细胞的侵袭力, millicell小室、细胞划痕愈合实验检测KiSS-1基因对MG63细胞迁移能力的影响。**结果:** 成功建立pSNAV2.0-KiSS-1质粒并稳定转染MG63细胞(MG63-KiSS-1细胞), MG63-KiSS-1细胞高表达KiSS-1 mRNA和蛋白。转染KiSS-1质粒后的MG63细胞侵袭力显著降低( $P<0.05$ ); millicell法、细胞划痕愈合实验证实转染KiSS-1质粒后的MG63细胞迁移力也明显降低( $P<0.05$ )。**结论:** KiSS-1基因能显著抑制人骨肉瘤MG63细胞的侵袭和迁移能力, 在骨肉瘤的转移中起重要作用。

**关键词:** [KiSS-1基因](#) [骨肉瘤](#) [MG63细胞](#) [侵袭](#) [迁移](#)

KiSS-1 inhibits invasion and migration of osteosarcoma MG63 cells [Download Fulltext](#)

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**Abstract:**

**Abstract Objective:** To investigate the effects of tumor metastasis-suppressor gene KiSS-1 on the invasion and migration abilities of osteosarcoma MG63 cells. **Methods:** KiSS-1 expression plasmid pSNAV2.0-KiSS-1 was constructed and transfected into MG63 cells. MG63 cells stably transfected with pSNAV2.0-KiSS-1 (named MG63-KiSS-1) were selected by G418. KiSS-1 mRNA and protein expression in MG63-KiSS-1 cells was examined by real-time PCR and Western blotting analysis, respectively. The invasion ability of MG63 cells was detected by transwell assay. The effects of KiSS-1 on the invasion and migration abilities of MG63 cells were measured by millicell assay and cell scratch healing assay. **Results:** MG63 cells stably transfected with pSNAV2.0-KiSS-1 were successfully established. MG63-KiSS-1 cells highly expressed KiSS-1 protein. The invasion ability of MG63 cells was significantly decreased after pSNAV2.0-KiSS-1 transfection ( $P<0.05$ ). The migration ability of MG63 cells was also significantly inhibited after pSNAV2.0-KiSS-1 transfection as examined by millicell assay and cell scratch healing assay ( $P<0.05$ ). **Conclusion:** KiSS-1 gene can significantly inhibit the invasion and migration abilities of osteosarcoma MG63 cells, which may play a key role in metastasis of osteosarcoma.

**Keywords:** [KiSS-1 gene](#) [osteosarcoma](#) [MG63 cell](#) [invasion](#) [migration](#)

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