

عنوان مقاله:

Blockade of Wnt/ β -catenin signaling for suppressing breast cancer metastasis

محل انتشار:

یازدهمین کنگره بین المللی سرطان پستان (سال: 1394)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Purpose: The relative level of Wnt/ β -catenin signaling pathway activity in breast cancer stem cells (BCSCs) is significantly higher than that in bulk cancer cells and therefore BCSCs could be sensitive to therapeutic approaches targeting Wnt/ β -catenin signaling pathway. **Methods:** Murine mammary cancer cell lines were cultured. Small hairpin RNA (shRNA) targeted mouse Wnt pathway genes. Cell proliferation was assayed with cytotoxicity assay. Real-time quantitative PCR and Flow cytometry and Luciferase assays was performed. **Results:** Wnt/ β -catenin signaling pathway activity is enhanced in malignant breast cancer tissues compared with their normal counterparts. Blockade of Wnt/ β -catenin signaling pathway suppresses the growth and phenotypic characteristics of BCSCs and therefore this pathway regulates proliferation and apoptosis of breast cancer cells. Targeting of this signaling pathway suppresses breast cancer invasion, migration, tumor growth and metastasis. **Discussion and conclusion:** In conclusion, we have demonstrated that Wnt/ β -catenin signaling regulates the self-renewal and migration of cancer stem cells (CSCs), thereby promoting tumor growth and metastasis/systemic dissemination in breast cancer. this signaling pathway could .serve as a novel target in BCSCs for the treatment of breast cancer

کلمات کلیدی:

Wnt/ β -catenin signaling, Breast cancer stem cells (BCSC), Metastasis

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