عنوان مقاله:

Stimulation of A3 adenosine receptor reduces breast cancer stem cell population through the inhibition of hedgehog cascade

محل انتشار:

دوازدهمین کنگره بین المللی سرطان پستان (سال: 1394)

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خلاصه مقاله:

Introduction: Numerous studies have demonstrated the role of A3 adenosine receptor (A3AR) and signaling pathways in multiple aspects of tumor, but currently, there is little study about the function of A3AR in the biological processes of cancer stem cells (CSCs). In this study we investigated the effect of A3AR agonist on breast CSCs.Materials and methods: The effect of A3AR agonist (Cl-IBMECA) on breast CSCs investigated by XTT assay and mammosphere formation. The ability of A3AR agonist to induce apoptosis in BCSCs was evaluated by Annexin V-FITC and PI. Western blotting was performed to examine apoptotic regulatory (Bax, and Bcl-2), and also GLI-1 proteins expression. Results: A3AR agonist reduces mammosphere formation and cell proliferation in a dose dependent manner. A3AR agonist also induces apoptosis in breast CSCs through inhibition of Bax/Bcl-2. Moreover the expression of Gli-1 was inhibited by A3AR agonist. Conclusions: These findings propose that A3AR agonist induces apoptosis in breast CSCs by downregulation of hedgehog pathways

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: