



Human Melanoma Cells Release Soluble and Functional Receptors

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Abstract:

Cytokines play important roles in the growth and growth arrest of cancer cells. IL-13 via an IL-4R alpha/IL-13R alpha 1 heterocomplex receptor inhibits the growth of renal cell carcinoma cells (RCC). However, it does not inhibit the growth of glioblastoma cells that express the IL-13R alpha 2 chain. In the present studies we investigated whether melanoma cells express IL-13R alpha 1 and IL-13R alpha 2 chains as well as whether they respond to IL-13. Membrane IL13R alpha 2 was co-expressed with IL-4R alpha and IL-13R alpha 1 chains in three of six tested melanoma cell lines. Furthermore, the IL-13R alpha 2 positive cell lines, release a soluble form of IL-13R alpha 2, specifically under IL-13 but not IL-4 stimulation. The release of soluble IL-13R alpha 2 was inhibited by various metalloproteinase inhibitors and EDTA inhibits the biological response to IL-13

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