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BRAK/CXCL14 expression in oral carcinoma cells completely suppresses tumor cell xenografts in SCID mouse

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ABSTRACT

SCID mice are a model of human severe combined immunodeficiency disease and are deficient in B cell function in addition to T cell function. Tumors from other species are easily transplanted into SCID mice and will grow without being rejected. We previously reported that the chemokine BRAK/CXCL14 is expressed in normal cells but its expression is down regulated in an *in vitro* cancer progression model, suggesting that it has the potential for antitumor activity. Here we report that the growth of BRAK/CXCL14 expression vector-transfected oral cancer cells was completely (100%) suppressed in SCID mouse xenografts even though mock-vector introduced control tumor cells grew well with 100% of animals developing tumors. In addition, suppression of xenografts was much faster and the rate was much higher in SCID mice than in T cell functiondeficient nude mice. These data indicate the possibility that BRAK expression inhibits tumor cell establishment by regulating interactions between tumor stem cells and NK cells and/or suppressing formation of tumor microvessels.

[PDF (695K)] [References]

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