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Dalotuzumab

National Cancer Institute

Source

National Cancer Institute. *Dalotuzumab*. NCI Thesaurus. Code C74011.

A recombinant humanized monoclonal antibody directed against the insulin-like growth factor 1 receptor (IGF1R) with potential antineoplastic activity. Dalotuzumab binds to membrane-bound IGF1R, preventing binding of the ligand IGF1 and the subsequent triggering of the PI3K/Akt signaling pathway; inhibition of this survival signaling pathway may result in the inhibition of tumor cell proliferation and the induction of tumor cell apoptosis. The activation of IGF1R, a tyrosine kinase and a member of the insulin receptor family, stimulates cell proliferation, enables oncogenic transformation, and suppresses apoptosis; IGF1R signaling has been highly implicated in tumorigenesis and metastasis.