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Cixutumumab

National Cancer Institute

Source

National Cancer Institute. *Cixutumumab*. NCI Thesaurus. Code C79828.

A fully human IgG1 monoclonal antibody directed against the human insulin-like growth factor-1 receptor (IGF-1R) with potential antineoplastic activity. Cixutumumab selectively binds to membrane-bound IGF-1R, thereby preventing the binding of the natural ligand IGF-1 and the subsequent activation of PI3K/AKT signaling pathway. Downregulation of the PI3K/AKT survival pathway may result in the induction of cancer cell apoptosis and may decrease cancer cellular proliferation. IGF-1R, a receptor tyrosine kinase of the insulin receptor superfamily overexpressed by many cancer cell types, stimulates cell proliferation, enables oncogenic transformation, and suppresses apoptosis; IGF-1R signaling has been implicated in tumorigenesis and metastasis.