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Olaratumab

National Cancer Institute

Source

National Cancer Institute. *Olaratumab*. NCI Thesaurus. Code C79825.

A fully human IgG1 monoclonal antibody directed against the platelet-derived growth factor receptor alpha (PDGFR alpha) with potential antineoplastic activity. Anti-PDGFR alpha monoclonal antibody IMC-3G3 selectively binds to PDGFR alpha, blocking the binding of its ligand, PDGF; signal transduction downstream of PDGFR through the MAPK and PI3K pathways is inhibited, which may result in inhibition of angiogenesis and tumor cell proliferation. Overexpressed by various cancer cell types, PDGFR is a transmembrane protein tyrosine kinase receptor, consisting of isoforms A and B that is important in regulating cellular growth and differentiation and angiogenesis.