Teprotumumab

National Cancer Institute

Source

National Cancer Institute. Teprotumumab. NCI Thesaurus. Code C95797.

A recombinant, fully human monoclonal antibody directed against the insulin-like growth factor-1 receptor (IGF-1R) with potential antineoplastic activity. Teprotumumab binds to membrane-bound IGF-1R, preventing the binding of the natural ligand IGF-1 and the activation of PI3K/AKT signal transduction; downregulation of the PI3K/AKT survival pathway may result in the induction of apoptosis and decreased cellular proliferation. The activation of IGF-1R, a receptor tyrosine kinase of the insulin receptor superfamily, stimulates cell proliferation, enables oncogenic transformation, and suppresses apoptosis; IGF-1R signaling has been implicated in tumorigenesis and metastasis.