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Fibatuzumab

National Cancer Institute

Source

National Cancer Institute. *Fibatuzumab*. NCI Thesaurus. Code C116629.

A non-fucosylated monoclonal antibody directed against the ephrin receptor A3 (EphA3), with potential antineoplastic activity. Upon administration, anti-EphA3 monoclonal antibody KB004 selectively binds to tumor cells expressing EphA3. This blocks both EphA3 activation and EphA3-mediated signaling, and induces apoptosis in EphA3-expressing tumor cells. In addition, KB004 can stimulate antibody dependent cell-mediated cytotoxicity (ADCC) against EphA3-expressing tumor cells. This agent also prevents tumor cell proliferation by inhibiting both EphA3 signaling and proliferation of endothelial cells in the tumor vasculature. The cell-surface receptor EphA3, a member of the ephrin family of receptor tyrosine kinases (RTKs) that are involved in mammalian development, is overexpressed by a variety of tumor types but is not expressed in normal healthy adult tissues. It plays an important role in tumor cell proliferation. Non-fucosylation of the antibody enhances its ADCC activity.