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Demcizumab

National Cancer Institute

Source

National Cancer Institute. *Demcizumab*. NCI Thesaurus. Code C80041.

A humanized monoclonal antibody directed against the N-terminal epitope of Notch ligand DLL4 (delta-like 4) with potential antineoplastic activity. Demcizumab binds to the membrane-binding portion of DLL4 and prevents its interaction with Notch-1 and Notch-4 receptors, thereby inhibiting Notch-mediated signaling and gene transcription, which may impede tumor angiogenesis. Activation of Notch receptors by DLL4 stimulates proteolytic cleavage of the Notch intracellular domain (NICD); after cleavage, NICD is translocated into the nucleus and mediates the transcriptional regulation of a variety of genes involved in vascular development. The expression of DLL4 is highly restricted to the vascular endothelium.