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Obinutuzumab

National Cancer Institute

Source

National Cancer Institute. *Obinutuzumab*. NCI Thesaurus. Code C70741.

A glycoengineered, humanized IgG1 monoclonal antibody with potential antineoplastic activity. Obinutuzumab, a third generation type II anti-CD20 antibody, selectively binds to the extracellular domain of the human CD20 antigen on malignant human B cells. The Fc region carbohydrates of the antibody, enriched in bisected non-fucosylated glycosylation variants, contribute to its higher binding affinity for human FcγRIII receptors compared to non-glycoengineered antibodies, resulting in enhanced antibody-dependent cellular cytotoxicity (ADCC) and caspase-independent apoptosis. In addition, modification of elbow hinge sequences within the antibody variable framework regions may account for the strong apoptosis-inducing activity of R7159 upon binding to CD20 on target cells.