Ocaratuzumab

National Cancer Institute

Source

An Fc-engineered monoclonal antibody directed against human CD20 with potential antineoplastic activity. Ocaratuzumab specifically binds to CD20 antigen (B1), preventing mitogen-induced B-cell proliferation; inhibiting B-cell differentiation; and promoting antibody-dependent cell-mediated cytotoxicity (ADCC) and apoptosis of B cells expressing CD20. The Fc portion of this monoclonal antibody has been engineered to possess a higher binding affinity for variant Fc receptors on T helper cells, resulting in an augmentation of the anti-tumor immune response. Because of Fc engineering, this agent may be significantly more potent than rituximab in inducing B cell-directed ADCC. CD20 is a non-glycosylated cell surface phosphoprotein that is exclusively expressed on B cells during most stages of B cell development.