Open Peer Review on Qeios

Anti-CD22 Monoclonal Antibody-MMAE Conjugate DCDT2980S

National Cancer Institute

Source

National Cancer Institute. <u>Anti-CD22 Monoclonal Antibody-MMAE Conjugate</u> <u>DCDT29805</u>. NCI Thesaurus. Code C104167.

An antibody-drug conjugate (ADC) composed of MCDT2219A, a humanized IgG1 anti-CD22 monoclonal antibody covalently linked, via a protease-cleavable peptide linker, to monomethyl auristatin E (MMAE), an auristatin derivative and a potent microtubule disrupting agent, with potential antineoplastic activity. Upon administration, the monoclonal antibody moiety of DCDT2980S binds to B cell-specific CD22 receptors and is rapidly internalized, thereby delivering MMAE intracellularly. Upon proteolytic cleavage, MMAE binds to tubulin and inhibits its polymerization, resulting in G2/M phase arrest and tumor cell apoptosis. CD22, a cell surface glycoprotein, is expressed on mature B-cells and on most malignant B-cells.