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# Anti-CD37 Antibody-Drug Conjugate IMGN529

National Cancer Institute

## Source

National Cancer Institute. *Anti-CD37 Antibody-Drug Conjugate IMGN529*. NCI Thesaurus. Code C100101.

An immunoconjugate that consists of a humanized IgG1 antibody K7153A against the cell-surface antigen CD37 and covalently linked via the uncleavable, maleimide-derived thioether-based linker SMCC to the maytansinoid DM1, with potential pro-apoptotic and cytotoxic activities. The antibody moiety of IMGN529 binds to CD37 on tumor B-cells and induces an antibody-dependent cell-mediated cytotoxicity (ADCC) and complement-dependent cytotoxicity (CDC), thereby showing pro-apoptotic activity. In addition, after the internalization of this agent and lysosomal degradation, the DM1 moiety binds to tubulin and inhibits tubulin polymerization and microtubule assembly, resulting in a disruption of microtubule activity and cell division, and eventually causing cell death in CD37-positive B-cells. CD37, a transmembrane glycoprotein, is overexpressed in B-cell malignancies. Compared to reducible, cleavable linkers, the non-reducible SMCC linker shows increased stability in plasma.