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Anti-CD48/MMAE Antibody-drug Conjugate SGN-CD48A

National Cancer Institute

Source

National Cancer Institute. *Anti-CD48/MMAE Antibody-drug Conjugate SGN-CD48A*. NCI Thesaurus. Code C148103.

An antibody-drug conjugate (ADC) composed of an antibody targeting the cell surface antigen CD48 that is conjugated to the microtubule-disrupting cytotoxic agent monomethyl auristatin E (MMAE), via a proprietary next-generation PEGylated glucuronide linker, with potential antineoplastic activity. Following intravenous administration, the antibody moiety of anti-CD48 ADC SGN-CD48A binds to CD48 on the surface of tumor cells. Following internalization of the ADC, the MMAE binds to tubulin and inhibits microtubule polymerization, which may result in G2/M phase cell cycle arrest and apoptosis in CD48-expressing tumor cells. CD48, a member of the signaling lymphocyte activation molecule (SLAM) family of immune cell receptors, is involved in T-cell activation and leukocyte trafficking. Additionally, CD48 is expressed on the surface of multiple myeloma cells at significantly higher levels than it is expressed on normal lymphocytes and monocytes. The linkage system in SGN-CD48A improves stability, reduces off-target uptake, and enables conjugation of larger numbers of MMAE/antibody than other systems, resulting in increased specificity against CD48-positive cells.