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Anti-LIV-1 Monoclonal Antibody-MMAE Conjugate SGN-LIV1A

National Cancer Institute

Source

National Cancer Institute. *Anti-LIV-1 Monoclonal Antibody-MMAE Conjugate SGN-LIV1A*. NCI Thesaurus. Code C112001.

An antibody-drug conjugate (ADC) composed of a humanized monoclonal antibody directed against the anti-solute carrier family 39 zinc transporter member 6 (SLC39A6; LIV-1; ZIP6) protein that is conjugated, via a protease-cleavable linker, to the cytotoxic agent monomethyl auristatin E (MMAE), with potential antineoplastic activity. Upon administration and internalization by LIV-1-positive tumor cells, anti-LIV-1 antibody-drug conjugate SGN-LIV1A undergoes enzymatic cleavage to release MMAE into the cytosol. In turn, MMAE binds to and inhibits tubulin polymerization, which may result in G2/M phase cell cycle arrest and apoptosis in LIV-1-expressing tumor cells. LIV-1, a member of the zinc transporter family, is expressed in several types of solid tumors and plays a key role in tumor cell progression and metastasis. The linkage system in SGN-LIV1A is highly stable in plasma, resulting in cytotoxic specificity against LIV-1-positive cells.