

[Open Peer Review on Qeios](#)

Lifastuzumab Vedotin

National Cancer Institute

Source

National Cancer Institute. *Lifastuzumab Vedotin*. NCI Thesaurus. Code C116747.

An antibody-drug conjugate (ADC) composed of a monoclonal antibody directed against the sodium-dependent phosphate transport protein 2B (NaPi2b), and covalently linked 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 DNIB0600A binds to NaPi2b-expressing tumor cells and is internalized, thereby delivering MMAE intracellularly. Proteolytic cleavage releases MMAE, which then binds to tubulin and inhibits its polymerization, resulting in G2/M phase arrest and tumor cell apoptosis. NaPi2b, a tumor-associated antigen (TAA), overexpressed in a variety of cancer cell types, plays a key role in transport of inorganic phosphate and the maintenance of phosphate homeostasis.