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Anti-HER3 Antibody-drug Conjugate U3 1402

National Cancer Institute

Source

National Cancer Institute. *Anti-HER3 Antibody-drug Conjugate U3 1402*. NCI Thesaurus. Code C136987.

An antibody-drug conjugate (ADC) composed of patritumab, a monoclonal antibody directed against the human epidermal growth factor receptor HER3 (ErbB3), linked to the topoisomerase I inhibitor DX 8951, a semisynthetic, water-soluble derivative of camptothecin, with potential antineoplastic activity. Upon administration of the anti-HER3 ADC U3 1402, the patritumab moiety targets and binds to HER3. After internalization, DX 8951 inhibits topoisomerase I activity by stabilizing the complex between topoisomerase I and DNA and inhibiting religation of DNA breaks, thereby inhibiting DNA replication and triggering apoptotic cell death. HER3, a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases, is frequently overexpressed in tumors.