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# Anti-CD70 Antibody-drug Conjugate SGN-CD70A

National Cancer Institute

## Source

National Cancer Institute. *Anti-CD70 Antibody-drug Conjugate SGN-CD70A*. NCI Thesaurus. Code C117732.

An antibody-drug conjugate (ADC) containing an engineered cysteine monoclonal antibody (EC-mAb), directed against the extracellular domain of the human CD70 molecule, conjugated to the synthetic, cytotoxic, DNA minor-groove crosslinking agent, pyrrolobenzodiazepine (PBD) dimer, via a stable, protease-cleavable, peptide-based linker, with potential antineoplastic activity. The anti-CD70 antibody moiety of the anti-CD70 antibody-drug conjugate SGN-CD70A selectively binds to the extracellular domain of CD70 on tumor cell surfaces. Upon internalization, the PBD dimer moiety is released and covalently binds, through its imine moieties, to the N2 positions of guanines on opposite strands of DNA. This induces DNA double strand breaks and inhibits DNA replication, which lead to the inhibition of cell growth of tumor cells that overexpress CD70. CD70, the ligand for the costimulatory receptor CD27 and a member of the tumor necrosis factor (TNF) family, is found on the surfaces of various types of cancer cells. The cysteine moiety of the EC-mAb allows for the stable conjugation of the PBD to the antibody.