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# Anti-CD74 Antibody-drug Conjugate STRO-001

National Cancer Institute

## Source

National Cancer Institute. *Anti-CD74 Antibody-drug Conjugate STRO-001*. NCI Thesaurus. Code C148066.

An antibody-drug conjugate (ADC) comprised of an aglycosylated human anti-CD74 IgG1 antibody (SP7219) that has been genetically modified to incorporate the non-natural amino acid (nnAA) para-azidomethyl-L-phenylalanine (pAMF), which is site-specifically conjugated to a non-cleavable dibenzocyclooctyne (DBCO)-maytansinoid linker-warhead, with potential antineoplastic activity. The antibody moiety of anti-CD74 ADC STRO-001 targets and binds to the CD74 expressed on tumor cells; upon internalization, the maytansinoid linker-warhead moiety binds to tubulin and disrupts microtubule assembly/disassembly dynamics, which results in the inhibition of both cell division and cell growth of CD74-expressing tumor cells. CD74, a transmembrane glycoprotein and tumor-associated antigen (TAA) involved in major histocompatibility complex (MHC) class II protein formation and localization, is a receptor for macrophage migration inhibitory factor (MIF; MMIF). MIF binding induces intramembrane cleavage of CD74, which liberates the cytosolic intracellular domain (ICD) of CD74 and regulates the expression of genes involved in promoting cell survival. CD74 is overexpressed on cells from hematologic B-lineage malignancies.