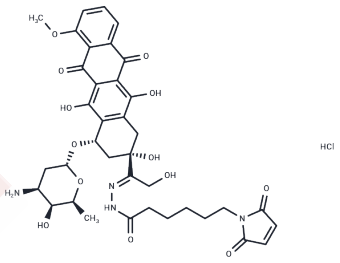
Data Sheet (Cat.No.T11090L1)

TargetMol

Aldoxorubicin hydrochloride

Chemical Properties



CAS No. : 1361563-03-2

Formula: C37H43ClN4O13

Molecular Weight: 787.21

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Aldoxorubicin hydrochloride is an albumin-binding prodrug of Doxorubicin, a DNA topoisomerase II inhibitor. Aldoxorubicin hydrochloride is released from albumin under acidic conditions. Aldoxorubicin hydrochloride exhibits potent antitumor activities in various cancer cell lines and in murine tumor models.
Targets(IC50)	ADC Cytotoxin,Topoisomerase
In vitro	Aldoxorubicin hydrochloride (0.27 to 2.16 μM) inhibits formation of blood vessel and reduces growth of multiple myeloma cell in a pH-dependent fashion[1].
In vivo	Aldoxorubicin hydrochloride (10.8 mg/kg, i.v.) significantly reduces tumor volumes and IgG levels by day 28, showing high tolerability with a 90% survival rate in mice with LAGκ-1A tumors [1]. It demonstrates a favorable safety profile at doses up to 260 mg/mL doxorubicin equivalents, effectively inducing tumor regression in breast cancer, small cell lung cancer, and sarcoma during a phase I study [2]. Additionally, it outperforms doxorubicin in murine renal cell carcinoma and breast carcinoma xenograft models [3].

Solubility Information

Solubility	DMSO: 127.5 mg/mL (161.96 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2703 mL	6.3515 mL	12.7031 mL
5 mM	0.2541 mL	1.2703 mL	2.5406 mL
10 mM	0.127 mL	0.6352 mL	1.2703 mL
50 mM	0.0254 mL	0.127 mL	0.2541 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Eric Sanchez, et al. Anti-Myeloma Effects of the Novel Anthracycline Derivative INNO-206. Clin Cancer Res.2012 18; 3856.

Kratz, F. INNO-206 (DOXO-EMCH), an Albumin-Binding Prodrug of Doxorubicin Under Development for Phase II Studies. Current Bioactive Compounds, 2011, 7(1): 33-38(6)

Graeser R, et al. INNO-206, the (6-maleimidocaproyl hydrazone derivative of doxorubicin), shows superior antitumor efficacy compared to doxorubicin in different tumor xenograft models and in an orthotopic pancreas carcinoma model. Invest New Drugs. 2010 F

Walker L, et al. Cell penetrating peptides fused to a thermally targeted biopolymer drug carrier improve the delivery and antitumor efficacy of an acid-sensitive doxorubicin derivative. Int J Pharm. 2012 Oct 15;436(1-2):825-32.