Deruxtecan

Cat. No.: HY-13631E

CAS No.: 1599440-13-7

Molecular Formula: $C_{52}H_{56}FN_9O_{13}$

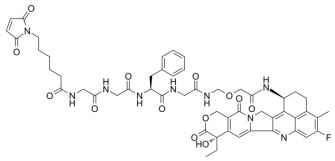
Molecular Weight: 1034.05

Target: Drug-Linker Conjugates for ADC

Pathway: Antibody-drug Conjugate/ADC Related

Storage: -20°C, protect from light, stored under nitrogen

* The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 35 mg/mL (33.85 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.9671 mL	4.8354 mL	9.6707 mL
	5 mM	0.1934 mL	0.9671 mL	1.9341 mL
	10 mM	0.0967 mL	0.4835 mL	0.9671 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 1.75 mg/mL (1.69 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 1.75 mg/mL (1.69 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.75 mg/mL (1.69 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Deruxtecan is an ADC drug-linker conjugate composed of an DX-8951 derivative (DXd) and amaleimide-GGFG peptide linker, used for synthesizing DS-8201 and U3-1402.

IC_{50} & Target

Camptothecins

In Vitro

Antibody-drug conjugates deliver anticancer agents selectively and efficiently to tumor tissue and have significant antitumor efficacy with a wide therapeutic window[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Clin Cancer Res. 2023 Jun 6;CCR-23-0103.
- J Control Release. 2024 Feb 13:367:779-790.
- Mol Cancer Ther. 2023 Sep 5;22(9):1013-1027.
- Biomolecules. 2024 Jan 15, 14(1), 106.
- AAPS J. 2022 May 27;24(4):70.

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REFERENCES

[1]. NOGUCHI, Shigeru, et al. METHOD FOR SELECTIVELY MANUFACTURING ANTIBODY-DRUG CONJUGATE. WO2017002776A1.

[2]. Ogitani Y, et al. Bystander killing effect of DS-8201a, a novel anti-human epidermal growth factor receptor 2 antibody-drug conjugate, in tumors with human epidermal growth factor receptor 2 heterogeneity. Cancer Sci. 2016 Jul;107(7):1039-46.

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