

# **Product** Data Sheet

## **DBCO-NHS** ester

Cat. No.: HY-42973 CAS No.: 1353016-71-3 Molecular Formula:  $C_{23}H_{18}N_{2}O_{5}$ Molecular Weight: 402.4 Target: **ADC Linker** 

Pathway: Antibody-drug Conjugate/ADC Related

Storage: Powder -20°C 3 years In solvent

> -20°C 1 month

-80°C

## SOLVENT & SOLUBILITY

In Vitro

DMSO: 50 mg/mL (124.25 mM; Need ultrasonic)

6 months

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.4851 mL	12.4254 mL	24.8509 mL
	5 mM	0.4970 mL	2.4851 mL	4.9702 mL
	10 mM	0.2485 mL	1.2425 mL	2.4851 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: ≥ 2.5 mg/mL (6.21 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- $\beta$ -CD in saline) Solubility: ≥ 2.5 mg/mL (6.21 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.21 mM); Clear solution

### **BIOLOGICAL ACTIVITY**

Description	DBCO-NHS ester is a cleavable ADC linker used in the synthesis of antibody-drug conjugates (ADCs) <sup>[1]</sup> . DBCO-NHS ester is a click chemistry reagent, it contains a DBCO group that can undergo strain-promoted alkyne-azide cycloaddition (SPAAC) with molecules containing Azide groups.	
IC <sub>50</sub> & Target	Cleavable Linker	
In Vitro	ADCs are comprised of an antibody to which is attached an ADC cytotoxin through an ADC linker.  MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

# **CUSTOMER VALIDATION**

- Nat Commun. 2023 Oct 31;14(1):6953.
- Angew Chem Int Ed Engl. 2021 May 10;60(20):11464-11473.
- Eur J Pharm Biopharm. 2023 Jan 2;S0939-6411(22)00322-8.
- Eur J Pharm Biopharm. 2023.

See more customer validations on www.MedChemExpress.com

#### **REFERENCES**

[1]. Method for identifying potential drug target protein useful for development of antibody drug, and method for producing antibody directed against target protein. WO2018151301A1.

Caution: Product has not been fully validated for medical applications. For research use only.

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