Azido-PEG6-NHS ester

Cat. No.: HY-130474

CAS No.: 2055014-64-5

Molecular Formula: $C_{19}H_{32}N_4O_{10}$

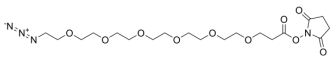
Molecular Weight: 476.48

Target: ADC Linker; PROTAC Linkers

Pathway: Antibody-drug Conjugate/ADC Related; PROTAC

Storage:

Pure form	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (209.87 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0987 mL	10.4936 mL	20.9872 mL
	5 mM	0.4197 mL	2.0987 mL	4.1974 mL
	10 mM	0.2099 mL	1.0494 mL	2.0987 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 (5.25 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.25 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Azido-PEG6-NHS ester is a cleavable 6 unit PEG ADC linker used in the synthesis of antibody-drug conjugates (ADCs)[1]. Azido-PEG6-NHS ester is also a PEG- and Alkyl/ether based PROTAC linker that can be used in the synthesis of PROTACs[2]. Azido-PEG6-NHS ester is a click chemistry reagent, it contains an Azide group and can undergo copper-catalyzed azide-alkyne cycloaddition reaction (CuAAc) with molecules containing Alkyne groups. Strain-promoted alkyne-azide cycloaddition (SPAAC) can also occur with molecules containing DBCO or BCN groups.

IC_{50} & Target			
	PEGs	Alkyl/ether	Cleavable Linker

In Vitro

ADCs are comprised of an antibody to which is attached an ADC cytotoxin through an ADC linker[1].
PROTACs contain two different ligands connected by a linker; one is a ligand for an E3 ubiquitin ligase and the other is for the target protein. PROTACs exploit the intracellular ubiquitin-proteasome system to selectively degrade target proteins[2].

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

REFERENCES

[1]. Thiele NA, et al. An Eighteen-Membered Macrocyclic Ligand for Actinium-225 Targeted Alpha Therapy. Angew Chem Int Ed Engl. 2017 Nov 13;56(46):14712-14717.

[2]. John W. Babich, et al. Trifunctional constructs with tunable pharmacokinetics useful in imaging and anti-tumor therapies. WO2018187631A1.

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