Azido-PEG2-C2-amine

Cat. No.: HY-140213

CAS No.: 166388-57-4

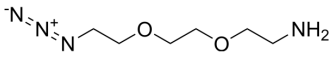
Molecular Formula: $C_6H_{14}N_4O_2$

Molecular Weight: 174.2

Target: PROTAC Linkers; ADC Linker

Pathway: PROTAC; Antibody-drug Conjugate/ADC Related

Storage: -20°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 100 mg/mL (574.05 mM; Need ultrasonic)
DMSO : 100 mg/mL (574.05 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	5.7405 mL	28.7026 mL	57.4053 mL
	5 mM	1.1481 mL	5.7405 mL	11.4811 mL
	10 mM	0.5741 mL	2.8703 mL	5.7405 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 (14.35 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (14.35 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (14.35 mM); Clear solution
4. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (14.35 mM); Clear solution
5. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (14.35 mM); Clear solution
6. Add each solvent one by one: 10% EtOH >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (14.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Azido-PEG2-C2-amine (N3-PEG2-CH2CH2NH2) is a PEG-based PROTAC linker that can be used in the synthesis of PROTACs[1].

	Azido-PEG2-C2-amine is also a non-cleavable 2 unit PEG ADC linker used in the synthesis of antibody-drug conjugates (ADCs) [2]. Azido-PEG2-C2-amine 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	Non-cleavable Linker
In Vitro	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[1]. ADCs are comprised of an antibody to which is attached an ADC cytotoxin through an ADC linker[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

[1]. Su S, et al. Potent and Preferential Degradation of CDK6 via Proteolysis Targeting Chimera Degraders. J Med Chem. 2019 Aug 22;62(16):7575-7582.

[2]. Tominari, Yusuk , et al. Heterocyclic compound. WO2020027225A1.

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