Proteins

Product Data Sheet

N3-PEG3-CH2CH2COOH

Cat. No.: HY-42490 CAS No.: 1056024-94-2 Molecular Formula: $C_{9}H_{17}N_{3}O_{5}$ Molecular Weight: 247.25

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)

$$N^{2}N^{4}$$

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (404.45 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.0445 mL	20.2224 mL	40.4449 mL
	5 mM	0.8089 mL	4.0445 mL	8.0890 mL
	10 mM	0.4044 mL	2.0222 mL	4.0445 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 (10.11 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (10.11 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (10.11 mM); Clear solution

BIOLOGICAL ACTIVITY

Description N3-PEG3-CH2COOH a PEG-based PROTAC linker can be used in the synthesis of BI-3663 (HY-111546), BI-4216 and BI-

0319. Azido-PEG3-acid is also a non-cleavable 3 unit PEG ADC linker used in the synthesis of antibody-drug conjugates (ADCs). N3-PEG3-CH2CH2COOH 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.

IC₅₀ & 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. 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.

REFERENCES

[1]. Popow J, et al. Highly Selective PTK2 Proteolysis Targeting Chimeras to Probe Focal Adhesion Kinase Scaffolding Functions. J Med Chem. 2019 Mar 14;62(5):2508-2520.

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

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