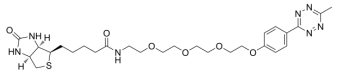
Biotin-PEG4-methyltetrazine

Cat. No.:	HY-140940
CAS No.:	1835759-81-3
Molecular Formula:	$C_{27}H_{39}N_7O_6S$
Molecular Weight:	589.71
Target:	PROTAC Linkers
Pathway:	PROTAC
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (84.79 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6957 mL	8.4787 mL	16.9575 mL
	5 mM	0.3391 mL	1.6957 mL	3.3915 mL
	10 mM	0.1696 mL	0.8479 mL	1.6957 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: ≥ 2.08 mg/mL (3.53 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (3.53 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Biotin-PEG4-methyltetrazine is a PEG-based PROTAC linker that can be used in the synthesis of PROTACs[1]. Biotin-PEG4-methyltetrazine is a click chemistry reagent, it contains a Tetrazine group that can undergo an inverse electron demand Diels-Alder reaction (iEDDA) with molecules containing TCO groups.

IC_{50} & Target

PEGs

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].

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

REFERENCES

[1]. An S, et al. Small-molecule PROTACs: An emerging and promising approach for the development of targeted therapy drugs. EBioMedicine. 2018 Oct;36:553-562

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