UV Cleavable Biotin-PEG2-Azide

Cat. No.: HY-140920

CAS No.: 1192802-98-4

Molecular Formula: $C_{38}H_{51}N_7O_9S$

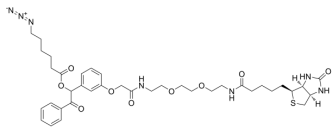
Molecular Weight: 781.92

Target: PROTAC Linkers

Pathway: PROTAC

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (127.89 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.2789 mL	6.3945 mL	12.7890 mL
	5 mM	0.2558 mL	1.2789 mL	2.5578 mL
	10 mM	0.1279 mL	0.6395 mL	1.2789 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 (3.20 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.20 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.20 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

UV Cleavable Biotin-PEG2-Azide is a PEG-based PROTAC linker that can be used in the synthesis of PROTACs[1]. UV Cleavable Biotin-PEG2-Azide 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

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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