

Biotin-azide

Cat. No.: HY-129832 908007-17-0 CAS No.: Molecular Formula: $C_{13}H_{22}N_6O_2S$ Molecular Weight: 326.42

Target: **Biochemical Assay Reagents**

Pathway: Others

Storage: Powder -20°C 3 years

2 years

In solvent -80°C 6 months

> -20°C 1 month

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (306.35 mM; Need ultrasonic) H₂O: 4 mg/mL (12.25 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.0635 mL	15.3177 mL	30.6354 mL
	5 mM	0.6127 mL	3.0635 mL	6.1271 mL
	10 mM	0.3064 mL	1.5318 mL	3.0635 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 (6.37 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (6.37 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (6.37 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Biotin-azide (N-(3-Azidopropyl)biotinamide) is a form of biotin with a terminal azide group. Biotin-azide can be used to prepare various biotinylated conjugates via Click Chemistry^{[1][2]}. Biotin-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.

In Vitro

Click chemical functionalization postcrosslinking with a Biotin-azide probe enabled the isolation of transcriptional protein complexes from yeast cells[3].

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

CUSTOMER VALIDATION

• Aging Cell. 2022 Nov 27;e13745.

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REFERENCES

[1]. Joiner CM, et al. A Bifunctional Amino Acid Enables Both Covalent Chemical Capture and Isolation of in Vivo Protein-Protein Interactions. Chembiochem. 2017 Jan 17;18(2):181-184.

[2]. Bruckman MA, et al. Tobacco mosaic virus-based protein nanoparticles and nanorods for chemotherapy delivery targeting breast cancer. J Control Release. 2016;231:103-113.

[3]. Kim HY, et al. An azido-biotin reagent for use in the isolation of protein adducts of lipid-derived electrophiles by streptavidin catch and photorelease. Mol Cell Proteomics. 2009;8(9):2080-2089.

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

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