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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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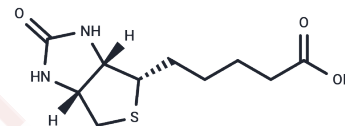
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Biotin

Chemical Properties

CAS No. :	58-85-5
Formula:	C ₁₀ H ₁₆ N ₂ O ₃ S
Molecular Weight:	244.31
Appearance:	no data available
Storage:	keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Biotin (Vitamin H) is a water-soluble B-vitamin and is necessary for cell growth, the production of fatty acids, and the metabolism of fats and amino acids.
In vitro	<p>METHODS: To induce significant biotinylation of neighboring proteins, supplementation with Biotin is required at concentrations typically between 10-50 μM, with optimal incubation times between 15-18 h, after which total biotinylation plateaus.</p> <p>RESULTS: Due to the formation of covalent bonds between biotin and lysine residues on proteins, biotinylation appears to remain constant throughout the life cycle of the protein and can withstand stringent cleavage and washing conditions, thus maximizing the purity of isolated proteins identified by MS. The identified proteins can then be investigated as candidate interactors with POIs. [1]</p> <p>METHODS: Mouse oligodendrocytes 158N were treated with Biotin (1-1000 nM) for 2 h, followed by the addition of 7β-OHC (50 μM) for a further 24 h. Cell viability was measured by MTT Assay.</p> <p>RESULTS: 7β-OHC-induced cytotoxicity was only prevented by Biotin at a concentration of 10-1000 nM. [2]</p>
In vivo	Biotin serves as a coenzyme for carboxylases, involved in the synthesis of fatty acids, isoleucine, and valine, as well as in gluconeogenesis. In biological research, it is primarily used to label proteins for biochemical studies.

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 50 mg/mL (204.66 mM), $\leq 1\text{ mg/ml}$ refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0932 mL	20.4658 mL	40.9316 mL
5 mM	0.8186 mL	4.0932 mL	8.1863 mL
10 mM	0.4093 mL	2.0466 mL	4.0932 mL
50 mM	0.0819 mL	0.4093 mL	0.8186 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Lv L, Chen P, Cao L, et al. Discovery of a molecular glue promoting CDK12-DDB1 interaction to trigger Cyclin K degradation. *Elife*. 2020, 9: e59994

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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