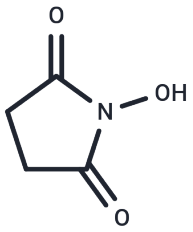
Data Sheet (Cat.No.T87003)

TargetMol

N-Hydroxysuccinimide

Chemical Properties



CAS No. : 6066-82-6

Formula: C4H5NO3

Molecular Weight: 115.09

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	N-Hydroxysuccinimide (NHS) is a commonly employed activating ester in peptide chemistry and protein cross-linking, typically utilised to activate carboxyl groups for coupling with amine groups, serving as a key activating agent in bio-conjugate reactions.
Targets(IC50)	Others
In vitro	In the collagen solution cross-linking experiment, N-Hydroxysuccinimide-activated adipic acid was confirmed by SDS-PAGE analysis to induce the formation of intermolecular cross-links in collagen. Fluorescence spectroscopy **Results** indicated enhanced microenvironmental polarity of collagen after cross-linking, while atomic force microscopy observations revealed randomly aggregated states of collagen molecules. These changes contribute to improving the self-assembly capability of collagen. [1]

Solubility Information

Solubility	DMSO: 257.5 mg/mL (2237.38 mM),Sonication is recommended. H2O: ≥ 80 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	8.6889 mL	43.4443 mL	86.8885 mL
5 mM	1.7378 mL	8.6889 mL	17.3777 mL
10 mM	0.8689 mL	4.3444 mL	8.6889 mL
50 mM	0.1738 mL	0.8689 mL	1.7378 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zhang M, et al. Interactions of collagen molecules in the presence of N-hydroxysuccinimide activated adipic acid (NHS-AA) as a crosslinking agent. Int J Biol Macromol. 2011 Nov 1;49(4):847-54.
Ishikawa S, et al. N-Hydroxysuccinimide Bifunctionalized Triblock Cross-Linker Having Hydrolysis Property for a Biodegradable and Injectable Hydrogel System. ACS Biomater Sci Eng. 2019 Nov 11;5(11):5759-5769.
Klykov O, et al. Quantification of N-hydroxysuccinimide and N-hydroxysulfosuccinimide by hydrophilic interaction chromatography (HILIC)[J]. Analytical methods, 2015, 7(15): 6443-6448.

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