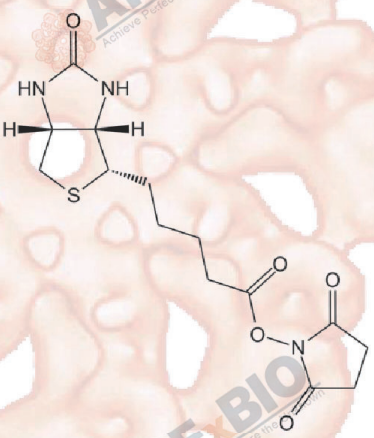
Product Data Sheet

NHS-Biotin



Cat. No.:	A8002
CAS No.:	35013-72-0
Formula:	C14H19N3SO5
M.Wt:	341.38
Synonyms:	Biotin N-hydroxysuccinimide ester, Biotin-OSU, Biotin NHS, Biotin SE
Target:	Biotinylation Reagents
Pathway:	Amine Biotinylation Reagents
Storage:	Desiccate at -20°C

Solvent & Solubility

In Vitro

insoluble in EtOH; insoluble in H2O; ≥17.07 mg/mL in DMSO

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1mg	5mg	10mg
1 mM	2.9293 mL	14.6464 mL	29.2929 mL
5 mM	0.5859 mL	2.9293 mL	5.8586 mL
10 mM	0.2929 mL	1.4646 mL	2.9293 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Amine-reactive biotinyltation reagent
IC_{50} & Target	

In Vitro

Cell Viability Assay

Preparation method:	Soluble in DMSO or DMF.
Reacting conditions:	30 minutes
Applications:	Firstly, NHS-biotin was dissolved in DMSO at a concentration of 100 mg/mL, after that using 90% DMSO solution diluted the biotin to a concentration of 20 mg/mL. The biotin solution was sterilized by filtering the solution through

		0.2-μm pore nylon syringe filters and the solution was diluted with 6 volumes 0.9% saline solution. Blood was allowed to warm to room temperature prior to labeling with NHS-biotin. To achieve a biotin concentration of 0.04 pg of biotin/RBC（Red Blood Cells）, Biotin-DMSO-saline solution was injected into each blood bag and agitated for 30 minutes.
In Vivo	**Animal experiment**	
	Applications:	

Product Citations

1. JLi X, Chen B, et al. "Immunodetection and counting of circulating tumor cells (HepG2) by combining gold nanoparticle labeling, rolling circle amplification and ICP-MS detection of gold." Mikrochim Acta. 2019 May 10;186(6):344.PMID:31076917
2. Lunin AV, Kolychev EL, et al. "Synthesis of highly-specific stable nanocrystalline goethite-like hydrous ferric oxide nanoparticles for biomedical applications by simple precipitation method." J
Colloid Interface Sci. 2019 Apr 1;541:143-149.PMID:30685609
3. Wang P, Tseng KF, et al. "The Central Stalk Determines the Motility of Mitotic Kinesin-14 Homodimers." Curr Biol. 2018 Jul 23;28(14):2302-2308.e3.PMID:30017487
4. Khan M, Schuster S, Zharnikov M. "Chemical derivatization and biofunctionalization of hydrogel nanomembranes for potential biomedical and biosensor applications." Phys Chem Chem Phys. 2016 Apr 28;18(17):12035-42.PMID:27067511
5. Michael J. Bond,Avijeet S. Chopra,et al. "Characterization and Target Identification of AK301: A Novel Mitotic Arrest Agent." University of Connecticut.2016 4 29.

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References

[1]. J.E. Tomlinson, E. Taberner, R.C. Boston, S.D. Owens, and R.D. Nolen-Walston. Survival Time of Cross-Match Incompatible Red Blood Cells in Adult Horses. J Vet Intern Med 2015;29:1683–1688.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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