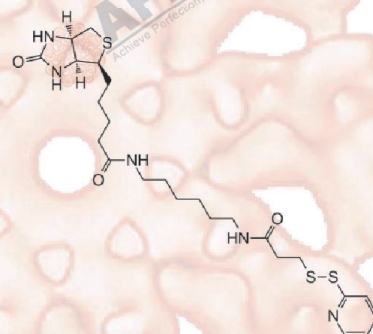


Product Data Sheet

Biotin-HPDP

Cat. No.:	A8008
CAS No.:	129179-83-5
Formula:	C ₂₄ H ₃₇ N ₅ O ₃ S ₃
M.Wt:	539.78
Synonyms:	BiotinHPDP
Target:	Biotinylation Reagents
Pathway:	Sulfhydryl Biotinylation Reagents
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥101.4 mg/mL in DMSO; ≥8.29 mg/mL in EtOH with ultrasonic

In Vitro

	Solvent	Mass Concentration	1mg	5mg	10mg
Preparing Stock Solutions		1 mM	1.8526 mL	9.2630 mL	18.5261 mL
		5 mM	0.3705 mL	1.8526 mL	3.7052 mL
		10 mM	0.1853 mL	0.9263 mL	1.8526 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary

Sulfhydryl-reactive biotinylation reagent, pyridyldithiol-activated

IC₅₀ & Target

In Vitro

Cell Viability Assay

Preparation method:	Soluble in DMSO or DMF.
Reacting conditions:	50mM, 25 °C for 1 h
Applications:	Prepare biotin-HPDP as a 50mM suspension in DMSO, Dilute with DMF to a final concentration of 4 mM. Add 1:3 volume of Labeling Solution and 1:50 volume of Ascorbate Solution (50mM) to the blocked protein samples, incubate for 1 hour at 25°C. After that, add two volumes of -20°C acetone and

incubate for 20 min at -20°C to remove the biotin-HPDP. At last, Add 15 μl of packed streptavidin-agarose per mg of protein used in the initial protein sample, to purify biotinylated proteins. Incubate the biotinylated proteins with the resin for 1 hour at room temperature. Wash the beads five times with 10 volumes of Neutralization Buffer + NaCl. Centrifuge at 200g for 5 s at room temperature between each wash. Incubate the beads with Elution Buffer to recover the bound proteins. To test for the protein of interest with specific antibodies in SDS-PAGE.

In Vivo

Animal experiment

Applications:

Product Citations

1. Wei CHEN, Fang-Ling ZHAN, et al. "Detection of S-palmitoylated Proteins in Mouse Heart Tissue Based on Different Precipitation Methods." Chinese Journal of Analytical Chemistry Volume 47, Issue 1, January 2019, Pages 30-37
2. Das S, Shklyayev OE, et al. "Harnessing catalytic pumps for directional delivery of microparticles in microchambers." Nat Commun. 2017 Feb 17;8:14384. PMID:28211454
3. Ortiz-Rivera, Isamar, et al. "Convective flow reversal in self-powered enzyme micropumps." Proceedings of the National Academy of Sciences 113.10 (2016): 2585-2590. PMID:26903618
4. Sambeeta Das. "DESIGNS FOR DIRECTING MOTION AT THE MICRO-AND NANOSCALE." The Pennsylvania State University. August 2016.
5. Isamar Ortiz - Rivera, Taylor M. Courtney, Ayusman Sen. "Enzyme Micropump - Based Inhibitor Assays." Advanced Functional Materials. April 5, 2016.

See more customer validations on www.apexbt.com.

References

- [1]. Samie R. Jaffrey and Solomon H. Snyder. The Biotin Switch Method for the Detection of S-Nitrosylated Proteins. Science's stke. 2015.

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 APEX-BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term 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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