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# Biocytin hydrochloride

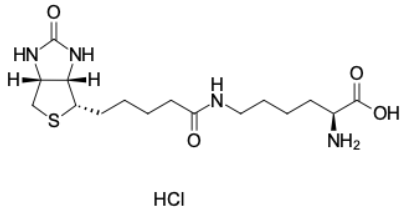
http://www.lumiprobe.com/p/biocytin-hydrochloride

Biocytin (ε-biotinoyl-L-lysine) is a derivative of D-biotin and L-lysine. The compound has both a carboxyl group and an amino group, due to which it is widely used as a spacer and a component of trifunctional crosslinkers in the modification of proteins.

Biocytin, as a biotinidase cofactor, can be used to determine the specificity of biotinidases and to study the kinetics and mechanisms of cellular delivery.

Biocytin is also used as an anterograde neurotracer.

Biocytin hydrochloride has a high solubility in aqueous solutions; it can be used to biotinylate proteins under slightly acidic conditions (pH 4-6) using EDAC, which distinguishes it from N-hydroxysuccinimide (NHS) esters of biotin.




**Structure of Biocytin hydrochloride**

## General properties

| | |
|---|---|
| Appearance: | white powder |
| Molecular weight: | 408.95 |
| CAS number: | 98930-70-2 |
| Molecular formula: | $C_{16}H_{29}ClN_4O_4S$ |
| IUPAC name: | (S)-2-amino-6-(5-((3aS,4S,6aR)-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanamido)hexanoic acid hydrochloride |
| Solubility: | good in water, DMSO |
| Quality control: | NMR $^1H$ and HPLC-MS (95+%) |
| Storage conditions: | 24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate. |
| Legal statement: | Product is offered and sold for research purposes only. Product is not tested for safety and efficacy in food, drug, medical device, cosmetic, no express or implied authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, for humans or animals or for commercial purposes. |