

## Biocytin hydrochloride

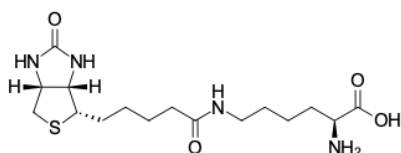
<http://www.lumiprobe.com/p/biocytin-hydrochloride>

Biocytin ( $\epsilon$ -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](#).



HCl

### 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 receipt at  $-20^\circ C$  in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

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