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# **DATASHEET**

Biocytin

## **Product overview**

NameBiocytinCat NoHB5035Biological actionDyes & stainsPurity>95% (NMR)

**Description** Classical neuroanatomical tracer

## **Images**



## **Biological Data**

### **Biological description**

### Overview

Biocytin is a conjugate of biotin and lysine which is small and soluble. It is widely used in neuroanatomical research as a neuroanatomical tracer.

### Uses and applications

Biocytin is taken up by neurons and rapidly transported in both anterograde and retrograde directions.

It has high affinity for avidin and consequently, can be visualized by various avidin and streptavidinconjugated markers for light, fluorescence or electron microscope detection.

Biocytin has a short half-life and is degraded by biotinidase a few hours after application.

## **Solubility & Handling**

Solubility overview Storage instructions Storage of solutions

Soluble in water (50 mM)

-20°(

Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

Stable for ambient temperature shipping. Follow storage instructions on receipt.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

**Shipping Conditions Important** 

## **Chemical Data**

Chemical name N6-[5-[(3aS,4S,6aR)-Hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-lysine

Molecular Weight 372.5

Chemical structure

InChi=1S/C16H28N4O4S/c17-10(15(22)23)5-3-4-8-18-13(21)7-2-1-6-12-14-11(9-25-12)19-16(24)2

0-14/h10-12,14H,1-9,17H2,(H,18,21)(H,22,23)(H2,19,20,24)/t10-,11-,12-,14-/m0/s1-2,14-f-2,14

InChiKey BAQMYDQNMFBZNA-MNXVOIDGSA-N

MDL number MFCD00077319

## References

### Biocytin-labelling and its impact on late 20th century studies of cortical circuitry

Thomson AM *et al* (2011) Brain Res Rev 66(1-2) **PubMedID**20399808

## Neuroanatomical labeling with biocytin: a review

McDonald AJ (1992) Neuroreport 3(10) **PubMedID** 1384763

### Immunostaining of Biocytin-filled and Processed Sections for Neurochemical Markers

Swietek B et al (2016) J Vis Exp 31

PubMedID 28117774