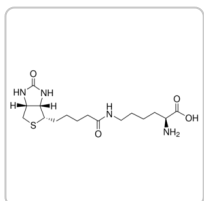


Type in Product Names, Product Numbers, or CAS Numbers to see suggestions.



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Documents

[↓ SDS](#)

[🔍 COO/COA](#)

[📄 Specification Sheet](#)

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B4261 ▶ **Sigma-Aldrich®**

Biocytin

≥98% (TLC)

Synonym(s):

Bct, N_ε-(+)-Biotinyl-L-lysine

Empirical Formula (Hill Notation):

C₁₆H₂₈N₄O₄S

CAS Number:

576-19-2

Molecular Weight:

372.48

Beilstein:

97197

MDL number:

MFCD00077319

PubChem Substance ID:

24891762

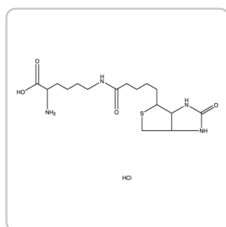
NACRES:

NA.26

SKU	Pack Size	Availability	Price	Quantity
B4261-5MG	5 MG	✓ Only 1 left in stock (more on the way) Details...	€47.20	— + i
B4261-25MG	25 MG	✓ Only 2 left in stock (more on the way) Details...	€134.00	— + i
B4261-50MG	50 MG	✓ Only 3 left in stock (more on the way) Details...	€239.00	— + i
B4261-100MG	100 MG	✓ Only 2 left in stock (more on the way) Details...	€392.00	— + i
B4261-250MG	250 MG	✓ Only 3 left in stock (more on the way) Details...	€783.00	— + i

[Add to Cart](#)

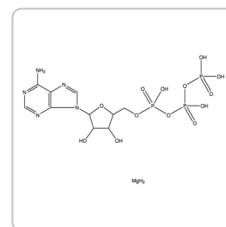
RECOMMENDED PRODUCTS



Sigma-Aldrich

B1758**Biocytin hydrochloride**

≥98% (TLC)

[View Price and Availability](#)

Sigma-Aldrich

A9187**Adenosine 5'-triphosphate magnesium salt**

≥95%, bacterial

[View Price and Availability](#)

PROPERTIES

Quality Level

200

assay

≥98% (TLC)

form

powder

optical activity

[α]_{20/D} +53°, c = 1.05% in 0.1 M NaOH(lit.)

technique(s)

drug transporter assay: suitable

color	white to off-white
mp	~245 °C (dec.) (lit.)
storage temp.	-20°C
SMILES string	<chem>[H][C@]12CS[C@@H](CCCCC(=O)NCCCC[C@H](N)C(O)=O)[C@@]1([H])NC(=O)N2</chem>
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)20-14/h10-12,14H,1-9,17H2,(H,18,21)(H,22,23)(H2,19,20,24)/t10,11,12,14-/m0/s1
InChI key	BAQMYDQNMFBZNA-MNXVOIDGSA-N

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Related Categories

[Amino Acids](#)

DESCRIPTION

Application

Biocytin is used as a substrate to study the specificity and kinetics of biotinidase(s), to measure biotinidase deficiency and as a model compound to study various uptake mechanisms of cells and tissues. Biocytin has been used to label neurons, medium spiny neurons and optic nerves.

Packaging

5 mg in glass bottle

25, 50, 100, 250 mg in poly bottle

Biochem/physiol Actions

Biocytin is an adduct of lysine and biotin. It is hydrolyzed by biotinidase, which acts on peptide-incorporated biotin or free biotin. Biocytin acts as a coenzyme.

SAFETY INFORMATION

Storage Class Code

13 - Non Combustible Solids

WGK

WGK 3

Flash Point(F)

Not applicable

Flash Point(C)

Not applicable

Personal Protective Equipment

dust mask type N95 (US),

Eyeshields, Gloves

DOCUMENTATION

Certificate of Analysis

Enter Lot Number to search for Certificate of Analysis (COA).

Lot Number

e.g. 023J5431

How to enter Lot Number (COA)

Search

Certificate of Origin

Enter Lot Number to search for Certificate of Origin (COO).

Lot Number

e.g. 023J5431

How to enter Lot Number (COO)

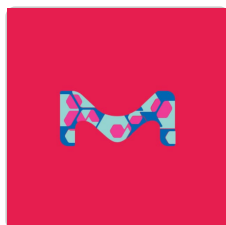
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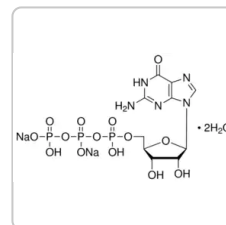


Sigma-Aldrich

SML2061

ST1926

≥98% (HPLC)



Sigma-Aldrich

51120

Guanosine 5'-triphosphate sodium salt hydrate

≥90% (HPLC)



[View Price and Availability](#)[View Price and Availability](#)

PEER REVIEWED PAPERS

Cytometry (2000)

Treadmill exercise reverses dendritic spine loss in direct and indirect striatal medium spiny neurons in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) mouse model of Parkinson's disease

William A

Neurobiology of Disease (2014)

Dbx1 precursor cells are a source of inspiratory XII premotoneurons

Ann L Revill

eLife, 4, e12301-e12301 (2015)

Closed-loop optogenetic control of thalamus as a tool for interrupting seizures after cortical injury.

Jeanne T Paz et al.

Nature neuroscience, 16(1), 64-70 (2012-11-13)

Cerebrocortical injuries such as stroke are a major source of disability. Maladaptive consequences can result from post-injury local reorganization of cortical circuits. For example, epilepsy is a common sequela of cortical stroke, but the mechanisms responsible for seizures following cortical

Close Homolog of L1 Regulates Dendritic Spine Density in the Mouse Cerebral Cortex Through Semaphorin 3B.

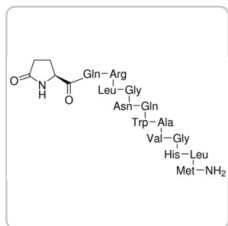
Vishwa Mohan et al.

The Journal of neuroscience : the official journal of the Society for Neuroscience, 39(32), 6233-6250 (2019-06-12)

Dendritic spines in the developing mammalian neocortex are initially overproduced and then eliminated during adolescence to achieve appropriate levels of excitation in mature networks. We show here that the L1 family cell adhesion molecule Close Homolog of L1 (CHL1) and

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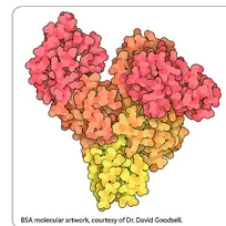
RECENTLY VIEWED PRODUCTS



Sigma-Aldrich

B4272**Bombesin acetate salt hydrate**

≥97% (HPLC)

[View Price and Availability](#)

Sigma-Aldrich

B4287**Bovine Serum Albumin**heat shock fraction, protease free, suitable for hybridization,
pH 7, ≥98%[View Price and Availability](#)

TECHNICAL SERVICE

Our team of scientists has experience in all areas of research including Life Science, Material Science, Chemical Synthesis, Chromatography, Analytical and many others.

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