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B4639 ▶ **Sigma-Aldrich®**

Biotin

powder, BioReagent, suitable for cell culture, suitable for insect cell culture, suitable for plant cell culture, ≥99%

Synonym(s):

D-Biotin, Bios II, Coenzyme R, Vitamin B7, Vitamin H

Empirical Formula (Hill Notation):

C₁₀H₁₆N₂O₃S

CAS Number: **58-85-5**

Molecular Weight: 244.31

Beilstein: 86838

EC Number: **200-399-3**

MDL number: **MFCD00005541**

eCl@ss: 34058011

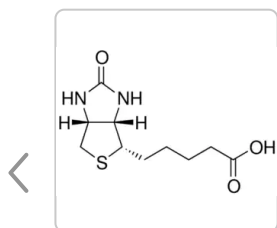
PubChem Substance ID: **24891795**

NACRES: NA.21

SKU	Pack Size	Availability	Price	Quantity		
B4639-100MG	100 MG	✔ Only 6 left in stock (more on the way) Details...	€43.60	— +	i	
B4639-500MG	500 MG	✔ Available to ship on October 10, 2022 Details...	€122.00	— +	i	
B4639-1G	1 G	✔ Available to ship on October 10, 2022 Details...	€228.00	— +	i	
B4639-5G	5 G	✔ Only 3 left in stock (more on the way) Details...	€744.00	— +	i	

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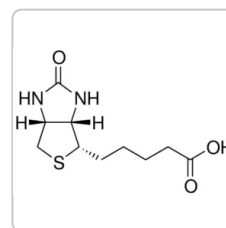
RECOMMENDED PRODUCTS



Sigma-Aldrich

B4501**Biotin**

≥99% (HPLC), lyophilized powder

[View Price and Availability](#)

Sigma-Aldrich

14400**Biotin**

≥99.0% (T)

[View Price and Availability](#)

PROPERTIES

product line BioReagent

Quality Level **200**

assay ≥99%

form powder

mol wt M_w 244.31 g/mol

technique(s)	cell culture insect: suitable cell culture mammalian: suitable cell culture plant: suitable
color	white to off-white
mp	231-233 °C (lit.)
solubility	H ₂ O: 0.2 mg/mL (Solubility increases with addition of 1 N NaOH.)
storage temp.	2-8°C
SMILES string	<chem>[H][C@]12CS[C@@H](CCCC(O)=O)[C@@]1([H])NC(=O)N2</chem>
InChI	1S/C10H16N2O3S/c13-8(14)4-2-1-3-7-9-6(5-16-7)11-10(15)12-9/h6-7,9H,1-5H2,(H,13,14) (H2,11,12,15)/t6-,7-,9-/m0/s1
InChI key	YBJHBAHKTGYVGT-ZKWXMUAHSA-N

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Related Categories

[Coenzymes](#)

[Plant Culture Media](#)

[Vitamins](#)

DESCRIPTION

General description

Biotin is also called as B complex vitamin. It is a bicyclic compound, which has a molecular weight of 244.31 Da. Biotin serves as an important cofactor for mammalian carboxylases. It is found within the cells in free and bound pools.

Application

Biotin has been used:

- as a M199 media supplement in *in vitro* culture system
- as a component of SATO serum free medium for the isolation of cortical oligodendrocyte precursors (OPCs)
- in biochemical precursors culture for *de novo* fatty acid synthesis
- as a component in aggregate culture media

Packaging

100, 500 mg in poly bottle

1, 5 g in poly bottle

Biochem/physiol Actions

Essential vitamin that is important for amino acid and energy metabolism, and fatty acid synthesis. It is a prosthetic group in four mammalian carboxylase families and facilitates the binding and transfer of carbon dioxide.

RELATED PRODUCTS

Related Product

B0301

Biotin, meets USP testing specifications

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SAFETY INFORMATION

Storage Class Code

11 - Combustible Solids

WGK

WGK 1

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

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More Documents

[Biochemical Solubility Product Information - B4639](#)

[FT-IR Condensed Phase](#)

[FT-NMR Spectra](#)

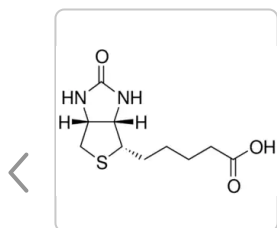
[Spectra - ATR-IR](#)

[Spectra for FT-IR Raman](#)

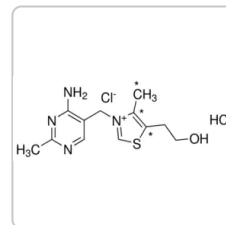
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[SDS](#)

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SAFC

RES1052B-B7**BIOTIN**[View Price and Availability](#)

Sigma-Aldrich

T1270**Thiamine hydrochloride**

BioReagent, suitable for cell culture, suitable for insect cell culture, suitable for plant cell culture

[View Price and Availability](#)

PEER REVIEWED PAPERS

Preparation of rat brain aggregate cultures for neuron and glia development studies

Koito H and Li J

Journal of Visualized Experiments, 31 (2009)

Convergent functional genomics of oligodendrocyte differentiation identifies multiple autoinhibitory signaling circuits

Gobert R P, et al.

Molecular and cellular biology, 29(6), 1538-1553 (2009)

Biochemical precursor effects on the fatty acid production in cell suspension cultures of *Theobroma cacao* L.

Parra O, et al.

Plant Physiology and Biochemistry, 111, 59-66 (2017)

Real-time in vivo green fluorescent protein imaging of a murine leishmaniasis model as a new tool for *Leishmania* vaccine and drug discovery

Mehta S R, et al.

Clinical and Vaccine Immunology : CVI, 15(12), 1764-1770 (2008)

Encyclopedia of dietary supplements (2010)

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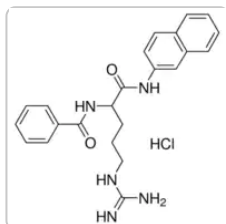
PROTOCOLS AND ARTICLES

Articles

Biotin in Cell Culture

Importance and uses of biotin in serum-free eukaryotic, including hybridoma and Chinese Hamster Ovary (CHO) cell, cultures

RECENTLY VIEWED PRODUCTS



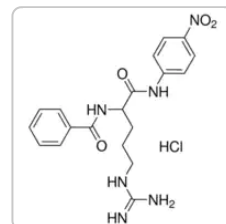
Sigma-Aldrich

B4750

N α -Benzoyl-DL-arginine β -naphthylamide hydrochloride

trypsin substrate

[View Price and Availability](#)



Sigma-Aldrich

B4875

N α -Benzoyl-DL-arginine 4-nitroanilide hydrochloride

≥98%

[View Price and Availability](#)

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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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