[Toutes les photos \(1\)](#)

Documents

[↓ FDS](#)[Q COO/COA](#)[Plus de documents »](#)**16842** ▶ **Sigma-Aldrich.**

Sodium (S)- β -hydroxyisobutyrate

★★★★★ (0)

 $\geq 96.0\%$

Synonyme(s):

(S)- β -Hydroxy-isobutyric acid sodium salt, (S)-3-Hydroxy-2-methylpropionic acid sodium salt, S-HIBA, R- β -HIBA-Na, Sodium (S)-3-hydroxy-2-methylpropionate

Empirical Formula (Hill Notation):

 $C_4H_7NaO_3$ Numéro CAS: **1893416-17-5**

Poids moléculaire: 126.09

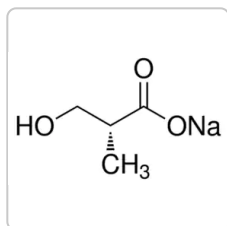
Numéro MDL: **MFCD17215930**ID de substance PubChem: **329751395**

NACRES: NA.25

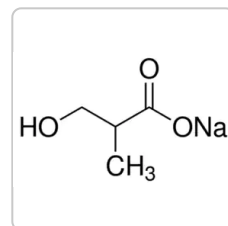
Référence	Conditionnement	Disponibilité	Prix	Quantité
16842-100MG	100 MG	Date d'expédition estimée le 10 octobre 2022	144,00 €	- +

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PRODUITS RECOMMANDÉS



Sigma-Aldrich

11161**Sodium (*R*)- β -hydroxyisobutyrate** $\geq 96.0\%$ [Consulter le prix et la disponibilité](#)

Sigma-Aldrich

36105**($\pm$)-Sodium β -hydroxyisobutyrate** $\geq 96.0\%$ [Consulter le prix et la disponibilité](#)

PROPRIÉTÉS

Niveau de qualité 100

Essai/Dosage $\geq 96.0\%$ (GC)
 $\geq 96.0\%$

Pureté optique enantiomeric excess: $\geq 98.0\%$

Composition sodium, 17.5-19.0%

Temp. de stockage 2-8°C

SMILES string [Na+].[C@@H](C(=O)C([O-])=O)C

InChI 1S/C4H8O3.Na/c1-3(2-5)4(6)7;/h3,5H,2H2,1H3,(H,6,7);/q;+1/p-1/t3-;/m0./s1

InChI key

RBJZIQZDAZLXEK-DFWYDOINSA-M

DESCRIPTION

Application

3-Hydroxyisobutyrate (HIBA) may be used to study the distribution, characterization and kinetics of enzymes involved in branched chain amino acid metabolism such as 3-hydroxyisobutyrate dehydrogenase (EC: 1.1.1.31) and 3-hydroxyisobutyryl-CoA hydrolase (EC: 3.1.2.4). (S)- β -hydroxyisobutyrate may be used in stereospecific studies.

Actions biochimiques/physiologiques

Metabolite in valine, leucine and isoleucine degradation, a reactant of enzymes 3-hydroxyisobutyrate dehydrogenase (EC: 1.1.1.31), 3-hydroxyacyl-CoA dehydrogenase (EC: 1.1.1.35) and 3-hydroxyisobutyryl-CoA hydrolase (EC: 3.1.2.4). Enantiomeric ratio can be used in diagnosis of metabolic diseases, e.g. 3-hydroxyisobutyric aciduria.

Conditionnement

Bottomless glass bottle. Contents are inside inserted fused cone.

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage

11 - Combustible Solids

WGK

WGK 3

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

Rechercher

Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COO)

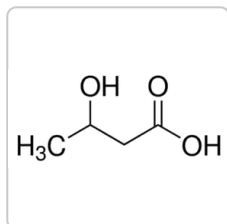
Rechercher

Plus De Documents

[Structure Search](#)

[FDS](#)

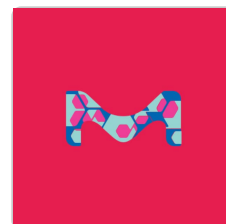
LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Sigma-Aldrich

166898**3-Hydroxybutyric acid**

95%

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

P4707**Poly-L-lysine solution**

0.01%, sterile-filtered, BioReagent, suitable for cell culture

[Consulter le prix et la disponibilité](#)

ARTICLES REVUS PAR DES PAIRS

The catalytic property of 3-hydroxyisobutyrate dehydrogenase from *Bacillus cereus* on 3-hydroxypropionate.

Tianran Yao et al.*Applied biochemistry and biotechnology*, 160(3), 694-703 (2009-06-12)

The MmsB gene product from *Bacillus cereus* ATCC14579 exhibits 3-hydroxypropionate dehydrogenase activity. It encodes the 32-kDa enzyme protein composed of 292 amino acids. Recombinant 3-hydroxyisobutyrate dehydrogenase (3-HIBADH) was purified 100-fold from cell extract by ammonium sulfate fractionation and column chromatography.

Expression of 3-hydroxyisobutyrate dehydrogenase in cultured neural cells.

Radovan Murín et al.*Journal of neurochemistry*, 105(4), 1176-1186 (2008-02-21)

The branched-chain amino acids (BCAAs)--isoleucine, leucine, and valine--belong to the limited group of substances transported through the blood-brain barrier. One of the functions they are thought to have in brain is to serve as substrates for meeting parenchymal energy demands.

Mutations in the gene encoding 3-hydroxyisobutyryl-CoA hydrolase results in progressive infantile neurodegeneration.

Ference J Loupatty et al.*American journal of human genetics*, 80(1), 195-199 (2006-12-13)

Only a single patient with 3-hydroxyisobutyryl-CoA hydrolase deficiency has been described in the literature, and the molecular basis of this inborn error of valine catabolism has remained unknown until now. Here, we present a second patient with 3-hydroxyisobutyryl-CoA hydrolase deficiency

Enzymology of the branched-chain amino acid oxidation disorders: the valine pathway.

Ronald J A Wanders et al.

Journal of inherited metabolic disease, 35(1), 5-12 (2010-11-26)

Valine is one of the three branched-chain amino acids which undergoes oxidation within mitochondria. In this paper, we describe the current state of knowledge with respect to the enzymology of the valine oxidation pathway and the different disorders affecting oxidation.

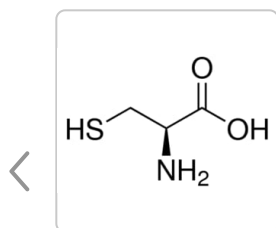
Stereodifferentiation of 3-hydroxyisobutyric- and 3-aminoisobutyric acid in human urine by enantioselective multidimensional capillary gas chromatography-mass spectrometry.

F Podebrad et al.

Clinica chimica acta; international journal of clinical chemistry, 292(1-2), 93-105 (2000-02-25)

The chiral metabolites 3-hydroxyisobutyric acid (HIBA) and 3-aminoisobutyric acid (AIBA) are intermediates in the pathways of L-valine and thymine and play an important role in the diagnosis of the very rare inherited metabolic diseases 3-hydroxyisobutyric aciduria (McKusick 236975) and methylmalonic

PRODUITS CONSULTÉS RÉCEMMENT



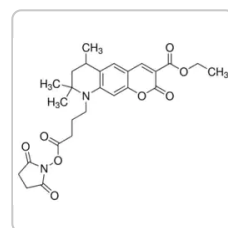
Sigma-Aldrich

168149

L-Cysteine

97%

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

16805

Atto 425 NHS ester

BioReagent, suitable for fluorescence, $\geq 90\%$ (HPLC)

[Consulter le prix et la disponibilité](#)

Évaluations



Soyez le premier à donner votre avis sur ce produit

Questions

Soyez le premier à poser une question

SERVICE TECHNIQUE

Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

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