Toutes les photos (1)

Documents

FDS

COO/COA

Plus de documents

3HBDB-RO Roche

3-Hydroxybutyrate Dehydrogenase (3-HBDH)

suspension, ~3 units/mg protein (At 25 °C with 3-hydroxybutyrate as the substrate; standardized with BSA.), grade II

Synonyme(s):
3-HBDH

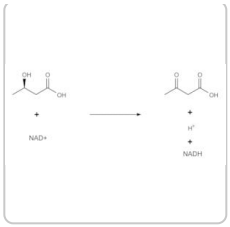
Numéro de classification (Commission des enzymes): 1.1.1.30 (BRENDA, IUBMB)

Référence	Conditionnement	Disponibilité	Prix	Quantité
10127833001	2 ML	Date d'expédition estimée le 17 octobre 2022	191,00 €	− +
10127841001	5 ML	Date d'expédition estimée le 04 novembre 2022	459,00 €	− +

Demander une commande en gros

Ajouter au panier

PRODUITS RECOMMANDÉS



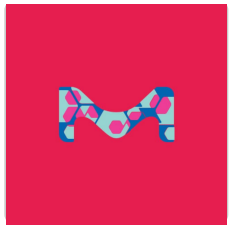
Sigma-Aldrich

H9408

β-Hydroxybutyrate Dehydrogenase from *Pseudomonas lemoignei*

lyophilized powder, ≥200 units/mg protein

Consulter le prix et la disponibilité



Sigma-Aldrich

H8509

β-Hydroxybutyrate Dehydrogenase from *Rhodopseudomonas sphaeroides*

Type V, lyophilized powder, 250-750 units/mg protein

Consulter le prix et la disponibilité

PROPRIÉTÉS

Niveau de qualité	100
Forme	suspension
specific activity	~3 units/mg protein (At 25 °C with 3-hydroxybutyrate as the substrate; standardized with BSA.)
Conditionnement	vial of 2 mL (10127833001) vial of 5 mL (10127841001)
manufacturer/tradename	Roche
Concentration	5 mg/mL
Impuretés	<0.1% LDH <5% MDH
pH optimal	6.2-6.9(for reduction) 7-9(for oxidation)

Expédié(e)(s) dans	wet ice
Temp. de stockage	2-8°C

Catégories apparentées

Roche® Life Science Products

DESCRIPTION

Description générale

3-Hydroxybutyrate dehydrogenase (3-HBDH) enzyme, obtained from *Rhodobacter sphaeroides*, is generally used for the quantification of ketone bodies, such as D-3-hydroxybutyrate and acetoacetate.

Application

3-Hydroxybutyrate Dehydrogenase (3-HBDH) oxidizes selectively (R)-3-hydroxymonocarboxylic acids, or reverse reaction.

Actions biochimiques/physiologiques

3-Hydroxybutyrate dehydrogenase (3-HBDH), a mitochondrial enzyme, catalyzes the reversible oxidation of 3-hydroxybutyrate (3HB) to acetoacetate, with NAD as coenzyme. In mammals, acetyl-coA is metabolized, in one of two pathways, to produce acetoacetate and D-3-hydroxybutyrate, which along with acetone are known as ketone bodies. 3-HBDH reversibly reduces this free acetoacetate to D-3-hydroxybutyrate. In patients with diabetic ketoacidosis (DKA), the ratio of 3HB and acetoacetate can be as high as 10:1, as compared to the normal ratio of 1:1. 3-HBDH enzyme can be used to detect the quantity of 3HB in urine, serum, and blood samples.

Qualité

Contaminants: <0.1% LDH, <5% MDH

Forme physique

Suspension in 3.2 M ammonium sulfate solution, pH approximately 6

Notes préparatoires

Stabilizers: NADH, Ca^{2+}

Autres remarques

For life science research only. Not for use in diagnostic procedures.

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage	WGK	Flash Point(F)	Point d'éclair C
12 - Non Combustible Liquids	WGK 1	No data available	No data available

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)

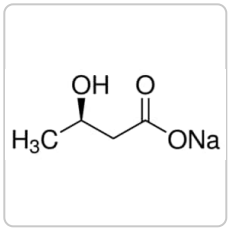
Rechercher

Plus De Documents

Enzyme Explorer

FDS

LES CLIENTS ONT ÉGALEMENT CONSULTÉ

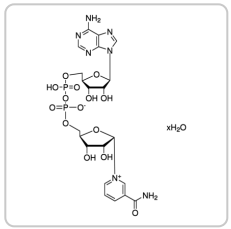


Sigma-Aldrich

298360

(*R*)-(−)-3-Hydroxybutyric acid sodium salt

optical purity ee: 99% (GLC)



Roche

NAD100-RO

NAD

Grade I, free acid

Consulter le prix et la disponibilité

Consulter le prix et la disponibilité

ARTICLES REVUS PAR DES PAIRS

Crystallization and preliminary X-ray characterization of D-3-hydroxybutyrate dehydrogenase from Pseudomonas fragi.

Yoshitaka Nakajima et al.
Acta crystallographica. Section F, Structural biology and crystallization communications, 61(Pt 1), 36-38 (2006-03-02)

A recombinant form of D-3-hydroxybutyrate dehydrogenase (EC 1.1.1.30) from Pseudomonas fragi has been crystallized by the hanging-drop method using PEG 3000 as a precipitating agent. The crystals belong to the orthorhombic group P2(1)2(1)2, with unit-cell parameters a = 64.3, b

3-Hydroxyisobutyrate dehydrogenase, an impurity in commercial 3-hydroxybutyrate dehydrogenase.

E B Worrall et al.
The Biochemical journal, 241(1), 297-300 (1987-01-01)

The enzymic determination of D-3-hydroxybutyrate and acetoacetate normally involves the use of 3-hydroxybutyrate dehydrogenase (HBDH, EC 1.1.1.30) of bacterial origin. We show that HBDH from Rhodopseudomonas spheroides (BCL, grade II) contains a 3-hydroxyisobutyrate dehydrogenase (HIBDH) activity: activity with 3-hydroxyisobutyrate as

Development of 3-hydroxybutyrate dehydrogenase enzyme biosensor based on carbon nanotube-modified screen-printed electrode.

Fahimeh Khorsand et al.
IET nanobiotechnology, 7(1), 1-6 (2013-05-28)

Precise detection of 3-hydroxybutyrate (HB) in biological samples is of great importance for management of diabetic patients. In this study, an HB biosensor based on single-walled carbon nanotubes (SWCNTs)-modified screen-printed electrode (SPE) was developed to determine the concentration of HB

PRODUITS CONSULTÉS RÉCEMMENT

Roche

HKG6PDH-RO

Hexokinase/Glucose-6-Phosphate Dehydrogenase (HK/G6P-DH)

from yeast/*Leuconostoc,* overproducer

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Roche

GDH-RO

Glycerol-3-Phosphate Dehydrogenase (GDH)

from rabbit muscle

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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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