

FT-LO3470

β -glucuronidase

Beta-Glucuronidase from Abalone is a superior reagent for hydrolysis of glucuronides, more effective in hydrolyzing opioid glucuronides.

Products Description

Catalog : LO3470, 2ml LO3471, 5ml LO3472, 10ml LO3473, 25ml
 Name: **β -Glucuronidase solution, from abalone**
 Concentration: >100 000 units* per ml
 Storage: 0-4°C ^(K) - long term: stable 2 years at -20°C

Catalog : AYPMO0 100 000units AYPMO1 1 000 000units
 Name: **β -Glucuronidase powder, from abalone**
 Syn.: β -D-Glucuronide; glucuronosohydrolase; GUS; Abalona.
 CAS: 9001-45-0 . EC 3.2.1.31
 Storage: +4°C ^(K) - long term: stable 2 years at -20°C

* One unit liberates 1.0 μ g phenolphthalein from phenolphthalein glucuronide per hour at 37 °C at pH 5.0.

Introduction

β -Glucuronidase (β -D-Glucuronide glucuronosohydrolase, EC 3.2.1.31, CAS: 9001-45-0) is routinely used for the enzymatic hydrolysis of glucuronides from urine, plasma, and other fluids prior to analysis by enzyme immunoassay, mass spectrometry, gas chromatography, high performance liquid chromatography, or other means. Its solution is a stable reagent for cleaving the glucuronide from drug metabolites, e.g. in toxicology studies.

The glucuronidase catalyzes the reaction:

This glucuronidase is extracted from red abalone (*Haliotis Rufescens*). The used abalone is raised in farms along the pacific coast to ensure sustainability for this important enzyme reagent.

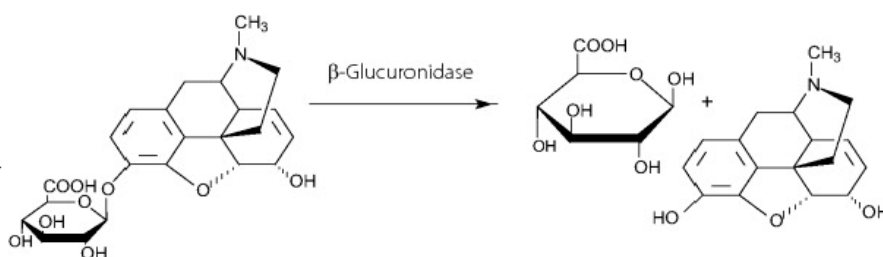
This glucuronidase is reported to be more effective for urines, and in hydrolyzing opioid glucuronides than steroid ones.

Our beta-Glucuronidase solution is highly active, and is lower in viscosity, allowing it to be easily compatible with autosampler delivery.

General β -Glucuronidase Hydrolysis Reaction



β -Glucuronidase Hydrolysis Reaction for Morphine 3- β -glucuronide



Typically, between 1 and 20 units of glucuronidase is used per μ l of plasma, urine, or bile for the enzymatic hydrolysis of glucuronides present in these samples. The exact amount needed will depend on the specific conditions used and must be determined empirically.

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Preparation of Solution:

Prepare β -Glucuronidase from abalone, 5 000 Fishman units/mL solution:

Dissolve 1ml of β -Glucuronidase solution containing 100 000 Fishman units with 20 mL 100 mM acetate buffer (pH 5.0). Store at 2+4°C in plastic vial. Stable several days, but prepare daily for best results.

Preparation of for Enzymatic Hydrolysis of Beta Glucuronides:

To 2 mL of urine add internal standard(s) and 1 mL of β -glucuronidase solution (prepared above to contains: 5 000 Fishman units/mL)

Mix/vortex.

Hydrolyze for 3 hours at 37°C.

Safety

GSH08 (Danger)

Hazard statements: H317-H334

Precautionary statements: P261-P280-P342 + P311

Not regulated for all modes of transport.

Related products

β -Glucuronidase from Abalone, Solution, with 4-Arylsulfatase () #BFWUZ0 [FT-LO3470](#)

Formula enriched with 4 arylsulfatases (hydrolysis of steroid metabolites), for the deconjugation of both glucuronidated and sulfated metabolites.

β -Glucuronidase, from *Helix Pomatia* (#LO3480, solution; #AJQ520, powder) [FT-LO3480](#)

beta Glucuronidase from helix pomatia is more effective than the other glucuronidase solutions in hydrolyzing steroid glucuronides.

β -Glucuronidase, from *E.coli* (#653395, solution) (#LO5330)

beta Glucuronidase from E.coli enables rapid hydrolysis of steroids (Carboxy-THC-glucuronide; Buprenorphine and Norbuprenorphine glucuronides; Codiene-6-glucuronide); No conversion of 6-MAM to morphine). No sulfatase contaminants.

β -Glucuronidase, from *Patella vulgata* (AYPMS0, solution)

beta Glucuronidase from limpets- patella vulgata is more effective and superior for hydrolyzing opioid glucuronides, Buprenorphine (suboxone) and Norbuprenorphine

beta-Glucuronidase from *Homo sapiens* (#24725_, powder)

*Inhibitors:⁽¹⁾

D-glucuronic acid (Ki = 1.5 mM)

D-galacturonic acid (Ki = 4.3 mM)

D-glucaro-1,4-lactone (Ki = 170 nM)

*Substrates:

5-Bromo-6-chloro-3-indolyl β -D-glucuronide (B 4532)

6-Bromo-2-naphthyl β -D-glucuronide (B 6519)

5-Bromo-4-chloro-3-indolyl β -D-glucuronide sodium salt tablet (B 8174)

8-Hydroxyquinoline glucuronide (H 1254)

4-Methylumbelliferyl β -D-glucuronide (M 5664)

4-Nitrophenyl β -D-glucopyranoside (N 7006)

* Literature :

Wakabayashi, M. and Fishman, W.H. ; J. Biol. Chem. 236 (1961) 996-1001.

The comparative ability of beta-glucuronidase preparations (liver, Escherichia coli, Helix pomatia, and Patella vulgata) to hydrolyze certain steroid glucosiduronic acids.

Other Information

For in vitro R&D use only

Please contact InterBioTech – Interchim for any other information

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