

FT-AYPMS0



β -glucuronidase

Beta-Glucuronidase from Patella is a superior reagent for hydrolysis of glucuronides from opioids.

Products Description

Catalog : AYPMS0 1ml AYPMS3 10ml AYPMS4 25ml
 Name: **β -Glucuronidase solution, from *Patella vulgata* (Limpet)**
 Syn.: β -D-Glucuronide glucuronosohydrolase; GUS . CAS: 9001-45-0 . EC 3.2.1.31
 MW: ~290 kDa (tetramer)⁽¹⁾; 68,259 Da (monomer)⁽¹⁾
 PI: 4.8⁽¹⁾ pH Optimal: 6-7⁽¹⁾
 Concentration: 85 000 units* per ml
 Storage: 0-4°C ^(K) - long term: stable 2 years at -20°C
 #B490Z- powder.

* One Glucuronidase unit liberates 1.0 μ g phenolphthalein from phenolphthalein glucuronide per hour at 37 °C at pH 5.0.
 One Sulfatase unit will hydrolyze 1.0 micromole of p-nitrocatechol sulfate per hour at pH 5.0 at 37 deg C (30 minute assay).

Introduction

β -Glucuronidase is derived from limpets-*patella vulgata* is more effective and superior to *Helix pomatia* and *E. coli* enzymes for hydrolyzing opiod glucuronides, Buprenorphine (suboxone) and Norbuprenorphine.

See the technical sheet [FT-LO3470](#) for general information about β -Glucuronidase.

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.

Preparation of 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.

The β -glucuronidase solution prepared above contains: 5 000 Fishman units/mL in 100 mM acetate buffer (pH=5.0).

Mix/vortex.

Hydrolyse for 3 hours at 37°C.

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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* (#AYPMO1, powder; #LO3470, solution)

beta Glucuronidase from abalone is a sustainable great choice for hydrolyzing steroid-glucuronides.

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

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.

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

References

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.

Malik W B, et al. Journal of Analytical Toxicology, 38(3), 171-176 (2014)

Evaluation of abalone beta-glucuronidase substitution in current urine hydrolysis procedures.

Other Information

For in vitro R&D use only

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Rev;U04E

Rev;T03E