FT-BX64S0

Advion Interchim scientific

β-glucuronidase

Beta-Glucuronidase from Abalone is a superior reagent for hydrolysis of glucuronide conjugates in urinary metabolite analysis

Products Description

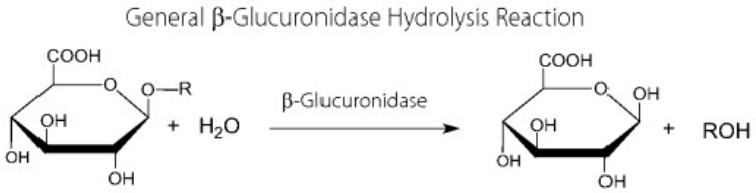
Catalog :	BX64S0, 1ml BX64S1, 2ml BX64S2, 5ml BX64S3, 10ml BX64S4, 25ml
Name:	**β-Glucuronidase solution, from abalone, type HP-2**
Concentration:	>85 000 units* per ml
Storage:	0-4°C (K) - long term: stable 2 years at -20°C

* One unit liberates 1.0 µg phenolphthalein from phenolphthalein glucuronide per hour at 37 ^{0}C at pH 5.0.

Introduction

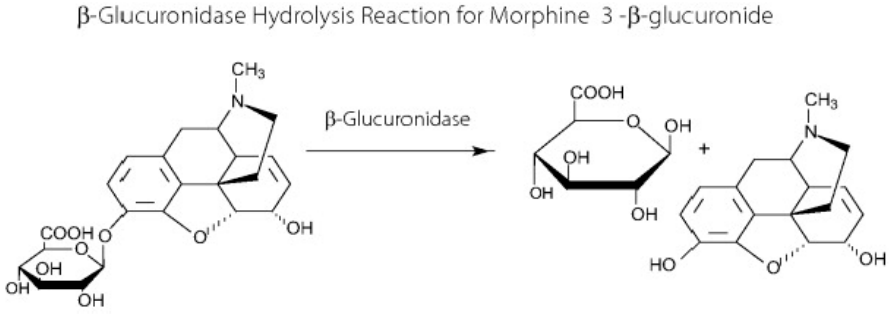
β-Glucuronidase (ß-D-Glucuronide glucuronosohydrolase, EC 3.2.1.31, CAS: 9001-45-0) is routinely used for the enzymatic hydrolysis of glucuronides from urine, plasma, and other fluids prior to analysis by enzyme immunoassay, mass spectrometry, gas chromatography, high performance liquid chromatography, 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.

Typically, between 1 and 20 units of glucuronidase is used per µl 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:

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

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Dissolve 1ml of ß-Glucuronidase solution containing 85 000 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 ß-glucuronidase solution (prepared above to contains: 5 000 Fishman units/mL)

Mix/vortex.

Hydrolyze for 3 hours at 37°C.

*Inhibitors:[r]
D-glucuronic acid (Ki = 1.5 mM)
D-galacturonic acid (Ki = 4.3 mM)
D-glucaro-1,4-lactone (Ki = 170 nM)

* 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