

Product Data Sheet

b-Glucuronidase

Cat # BGS-04	b-Glucuronidase (1000 U/mg), Helix pomatia, freeze dried material	Size: 1 mU
Cat # BGS-04	b-Glucuronidase (1000 U/mg), Helix pomatia, freeze dried material	Size: 2 mU

Glucuronidation, conjugation with glucuronic acid, by the human UDP-glucuronosyltransferase (UGT) family of enzymes plays an important role in the metabolic fate of many drugs and other xenobiotics. This biosynthetic reaction also has a role in the conjugation and excretion of endogenous substrates, such as steroids, bilirubin, and bile acids. UGT activity results in the conjugation of glucuronic acid to substrates containing sulfhydryl, hydroxyl, aromatic amino, or carboxylic acid moieties. The glucuronides formed are more polar (water soluble) than the parent organic substrate and are generally excreted through the kidney.

b-glucuronidase catalyzes the reaction:

b-D-glucuronoside + H₂O -----> an alcohol + D-glucuronate

b-Glucuronidase Type H-1 has been used for the enzymatic hydrolysis of these metabolites from urine, plasma, serum and bile prior to analysis by various means. The enzyme has also been used for the digestion of fungal mycelium. Typically, between 1 and 20 units of glucuronidase is used per ml 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.

b-Glucuronidase Type H-1 from Helix pomatia is a partially purified, essentially salt-free powder of enzymes derived from the Roman snail. Many b-glucuronidases derived from mollusks also contain sulfatase activity.

Form and Storage

b-Glucuronidase Type H-1 from Helix pomatia is a partially purified, essentially salt-free powder of enzymes derived from the Roman snail. The powdered enzyme should be stored in the freezer (-20°C). If properly stored, these products have a shelf life of at least two years..

Appearance (Color)	Faint Brown
Optimal pH:	
glucuronidase activity	4.5 to 5.0
sulfatase activity	~6.2

Glucuronidase Activity: ≥300,000 units/gm solid

Unit Definition: One Sigma or modified Fishman unit will liberate 1.0 mg of phenolphthalein from phenolphthalein glucuronide per hour at 37 °C at pH 5.0 (30 min assay).

Sulfatase Activity: ≥10,000 units/gm solid

Unit Definition: One unit of sulfatase will hydrolyze 1.0 mmole p-nitrocatechol sulfate per hour at pH 5.0 at 37 °C.

References

Tephly, T.R., et al. (1998) Adv. Pharmacol., 42, 343-346; Pozzi, E.J.S., et al. (2003) J. Pharmacol. Exp. Therap., 306, 279-286.

For in vitro research use only

Related Material available for ADI

BGS-04

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