

## Recombinant Human Beta-glucuronidase/GUSB protein (His Tag)

**Catalog Number:** PDMH100079

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human Beta-glucuronidase;GUSB protein Met1-Thr651, with an C-terminal His
<b>Calculated MW</b>	71.5 kDa
<b>Observed MW</b>	80 kDa
<b>Accession</b>	P08236
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Background

Human beta-Glucuronidase (EC 3.2.1.31) encoded by the GUSB gene is a lysosomal hydrolase involved in the stepwise degradation of glucuronic acid-containing glycosaminoglycans that include heparan sulfate, chondroitin sulfate and hyaluronan. The enzyme is only active on the glucuronic acid of the non-reducing end. The native protein has been reported as a tetrameric glycoprotein composed of identical subunits. Mutations in the GUSB gene are linked to mucopolysaccharidosis type VII. Accumulation of partially degraded glycosaminoglycans, with glucuronic acid residues at the non-reducing termini, are usually found in the lysosomes of patients with the disease. It has also been reported that this enzyme may contribute to the depletion of chondroitin from cartilage and thereby facilitate the damage of joints in rheumatoid arthritis.

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