

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human $\beta$ -Glucuronidase/GUSB in direct ELISAs and Western blots.                                                                                                                                                                                               |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human $\beta$ -Glucuronidase/GUSB<br>Met1-Thr651<br>Accession # AAA52561                                                                                                                                                    |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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 (1). 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 (1, 2). Mutations in the GUSB gene are linked to mucopolysaccharidosis type VII (3). 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 (3). 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 (4).

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