

#### DESCRIPTION

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|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse Heparan Sulfate 6-O-Sulfotransferase/HS6ST3 in direct ELISAs.                                                                                                                                                                                                 |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Chinese hamster ovary cell line CHO-derived recombinant mouse Heparan Sulfate 6-O-Sulfotransferase/HS6ST3<br>Pro28-Trp470<br>Accession # NP_056635                                                                                                                          |
| <b>Conjugate</b>          | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 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.

**Immunohistochemistry** 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

HS6ST3 (Heparan sulfate 6-O-sulfotransferase 3) is a 60-62 kDa member of the sulfotransferase 6 family of enzymes. It is one of three 6-O sulfotransferase isoforms, all of which essentially perform the same function, but all of which are the products of distinct genes. HS6ST3 is known to sulfate the #6 position of glucosamine sulfate that is linked to a 2-O-sulfated iduronic acid in heparan sulfate. The molecule shows a temporal expression pattern, being found in postnatal cerebellar Purkinje cells and cerebral cortical pyramidal cells in layers II/III and V. Mouse HS6ST3 is a 470 amino acid (aa) type II transmembrane glycoprotein. It contains a short four aa cytoplasmic N-terminus coupled to an extended 443 aa luminal domain (aa 28-470). The luminal domain contains a stem region (aa 28-83) that mediates oligomerization and Golgi localization, plus a sulfotransferase enzyme domain (aa 142-409). Cleavage within the stem region by  $\beta$ -secretase generates a soluble form of HS6ST3. Over aa 28-470, mouse HS6ST3 shares 99% and 95% aa identity with rat and human HS6ST3, respectively.

#### PRODUCT SPECIFIC NOTICES

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