

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Heparan Sulfate 6-O-Sulfotransferase 1/HS6ST1 in direct ELISAs.                                                                                                                                                                                               |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2A</sub> Clone # 584308                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Chinese hamster ovary cell line CHO-derived recombinant human Heparan Sulfate 6-O-Sulfotransferase 1/HS6ST1<br>Pro38-Trp411<br>Accession # O60243                                                                                                                           |
| <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.

**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

Heparan Sulfate is a highly sulfated polysaccharide that can be found on cell surface and extracellular matrix. It is usually covalently attached to a protein core as the glycan component of a proteoglycan. Heparan Sulfate interacts with a variety of proteins, such as growth factors, protease inhibitors, cytokines, lipoprotein lipase and viral envelope proteins, thus plays roles from cell growth, cell differentiation, cell motility, blood coagulation, lipid metabolism to viral infection (1, 2). Heparan Sulfate consists of repeating residues of uronic acid and N-acetylglucosamine. The uronic acid residues can be sulfated at 2-O position by Heparan Sulfate 2-O Sulfotransferase (HS2ST). The N-acetylglucosamine residues can be sulfated at N-, 3-O, and 6-O positions by N-deacetylase/N-sulfotransferases (NDSTs), Heparan Sulfate 3-O and 6-O sulfotransferases (HS3STs and HS6STs) respectively. However, the reactions catalyzed by these sulfotransferases are normally incomplete on the whole chain of Heparan Sulfate. As a result, Heparan Sulfate displays enormous sequence diversity that allows it to interact with a wide spectrum of proteins differently. Among three HS6STs, HS6ST1 is the first to be cloned (3). Mice deficient of the HS6ST1 homologue gene showed embryonic lethality (4).

#### PRODUCT SPECIFIC NOTICES

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