Human Heparan Sulfate 3-O-Sulfotransferase 4/HS3ST4 Alexa Fluor® 750-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 712010

Catalog Number: FAB6085S

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Heparan Sulfate 3-O-Sulfotransferase 4/HS3ST4 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human HS3ST3B1 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 712010
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Heparan Sulfate 3-O-Sulfotransferase 4/HS3ST4 Gly184-Lys456 Accession # Q9Y661
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	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 the cell surface and within the extracellular matrix. It is typically covalently attached to the protein core of proteoglycans, such as syndecans and glypicans. Heparin, on the other hand, can be considered as a highly sulfated version of heparan sulfate that is predominantly found in mast cells. Both heparin and heparan sulfate contain disaccharide repeats of uronic acid and N-acetylglucosamine and are modified by the same sulfotransferases (1, 2). The uronic acid residues can be sulfated at the 2-O position by heparan sulfate 2-O sulfotransferase (HS2ST). The N-acetylglucosamine residues can be sulfated at the N, 3-O, and 6-O positions by N-deacetylase/N-sulfotransferases (NDSTs), heparan sulfate 3-O sulfotransferases (HS3STs) and heparan sulfate 6-O sulfotransferases (HS6STs) respectively. There are seven HS3STs in the human genome (3, 4). HS3ST4 and HS3ST2 are brain specific and may participate in HS-dependent neurobiologic events (5). HS3ST4 can generate tetrasulfated heparan sulfate disaccharide, the most highly sulfated sugar found in biological samples (6, 7), and may have a role in assisting HSV-1 entry and spread (8). HS3ST4 is a Golgi resident type II membrane protein and has the longest proline rich stem region among all HS3STs (3, 5).

PRODUCT SPECIFIC NOTICES

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