

# Recombinant Rat ST6GAL1 Protein (Lys27-Cys403), His-tagged

**Cat. No.** ST6GAL1-961R    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Recombinant Rat ST6GAL1 Protein (NP\_001106815.1) (Lys27-Cys403) was produced by HEK293 Cells expression system. This protein was expressed with a polyhistidine tag at the N-terminus.

### Species

Rat

### Source

HEK293

### ProteinLength

Lys27-Cys403

### Description

Beta-galactoside alpha-2,6-sialyltransferase 1, also known as B-cell antigen CD75, Sialyltransferase 1, CMP-N-acetylneuraminase-beta-galactosamide-alpha-2,6-sialyltransferase 1, ST6GAL1 and SIAT1, is a single-pass type II membrane protein which belongs to the glycosyltransferase 29 family. Sialyltransferases are key enzymes in the biosynthesis of sialoglycoconjugates that catalyze the transfer of sialic residue from its activated form to an oligosaccharidic acceptor. ST6GAL1 / SIAT1 is normally found in the Golgi but which can be proteolytically processed to a soluble form. It is involved in the generation of the cell-surface carbohydrate determinants and differentiation antigens HB-6, CDw75, and CD76.  $\beta$ -Galactoside  $\alpha$ 2,6-sialyltransferases ST6GAL1 and ST6GAL2 are the two unique members of the ST6GAL family described in higher vertebrates. ST6GAL1 / SIAT1 transfers sialic acid from the donor of substrate CMP-sialic acid to galactose containing acceptor substrates.

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|                             |                                                                                                                                                                                                                                                              |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Predicted N Terminal</b> | His                                                                                                                                                                                                                                                          |
| <b>Form</b>                 | Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.                                                                                                               |
| <b>Molecular Mass</b>       | The recombinant rat ST6GAL1 consists of 396 amino acids and predicts a molecular mass of 46 kDa.                                                                                                                                                             |
| <b>Endotoxin</b>            | < 1.0 EU per µg protein as determined by the LAL method.                                                                                                                                                                                                     |
| <b>Purity</b>               | > 95 % as determined by SDS-PAGE.                                                                                                                                                                                                                            |
| <b>Stability</b>            | Samples are stable for up to twelve months from date of receipt at -70 centigrade.                                                                                                                                                                           |
| <b>Storage</b>              | Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.                                                                               |
| <b>Reconstitution</b>       | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                                |
| <b>Shipping</b>             | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## GENE INFORMATION

|                        |                                                                                    |
|------------------------|------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | St6gal1 ST6 beta-galactosamide alpha-2,6-sialyltransferase 1 [ Rattus norvegicus ] |
| <b>Official Symbol</b> | ST6GAL1                                                                            |

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|                |                                                    |
|----------------|----------------------------------------------------|
| Synonyms       | ST6GAL1; ST6GalI; ST6Gal I; alpha 2,6-ST 1; Siat1; |
| Gene ID        | 25197                                              |
| mRNA Refseq    | NM_001113344                                       |
| Protein Refseq | NP_001106815                                       |
| UniProt ID     | P13721                                             |

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