# Data Sheet (Cat.No.TMPY-02093)

TargetMol

## ST6GAL1 Protein, Human, Recombinant (His)

### General Information

| | |
|---|---|
| Synonyms: | ST6 β-galactosamide α-2,6-sialyltranferase 1;ST6 beta-galactosamide alpha-2,6-sialyltranferase 1;SIAT1;ST6 beta-galactosamide α-2,6-sialyltranferase 1;ST6Gall;ST6N |
| Protein Construction: | A DNA sequence encoding the human ST6GAL1 (P15907) (Lys 27-Cys 406) was expressed, with a polyhistidine tag at the N-terminus. Predicted N terminal: His |
| Species: | Human |
| Expression Host: | HEK293 Cells |
| Accession: | P15907 |
| Molecular Weight: | 46 kDa (predicted); 50-55 kDa. (reducing conditions) |

### QC Testing

| | |
|---|---|
| Biological Activity: | Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first. |
| Purity: | ≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC. |
| Endotoxin: | < 1.0 EU/μg of the protein as determined by the LAL method. |
| Formulation: | Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization. |

### Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Beta-galactoside alpha-2,6-sialyltransferase 1, also known as B-cell antigen CD75, Sialyltransferase 1, CMP-N-acetylneuraminate-beta-galactosamide-alpha-2,6-sialyltransferase 1, ST6GAL1 and SIAT1, is a single-pass type II membrane protein that 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 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. β-Galactoside α2,6-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.

Reference

Collins,B.E. et al., 2006, Nat Immunol. 7(2):199-206.
Videira,P.A. et al., 2008, Glycoconj J. 25(3): 259-68.
Petit,D. et al., 2010, J Biol Chem. 285(49): 38399-414.
Kroes,R.A. et al., 2010, Proc Natl Acad Sci USA.107(28):12646-51.



Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481