

Product datasheet for **RC238401**

ST6GALNAC1 (NM_001289107) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ST6GALNAC1 (NM_001289107) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ST6GALNAC1
Synonyms:	HSY11339; SIAT7A; ST6GalNAcI; STYI
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC238401 representing NM_001289107
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTGAACACACTGTCACCAGAGGGCAAGATGCAGGGATGGCCTCTGGCAGGACAGAGGCACAATCAT
 GGAAGAGCCAGGACACAAAGACGCCAAGGAAATGGGGGCCAGACCAGGAAGCTGACGGCTCCAGGAC
 GGTGTCAGAGAAGCACCAAGGCAAGCGCAACCACAGCCAAGACGCTCATTCCCAAAAAGTCAGCACAGA
 ATGCTGGCTCCCACAGGAGCAGTGTCAACAAGGACGAGACAGAAAGGAGTGACCACAGCAGTCATCCAC
 CTAAGGAGAAGAACTCAGGCCACCCACCCCTGCCCTTTCCAGAGCCCACGACGACAGAGAAACCA
 AAGACTGAAGGCCCAACTTCAAATCTGAGCCTCGGTGGGATTTTGGGAAAAATACAGCTTCGAAATA
 GGAGGCCCTCAGACGACTGGCCTGACTCTGTGAAGATCAAAGCCTCAAGTCGCTGTGGCTCCAGAAAC
 TCTTTCTGCCAACCTCACTCTCTTCTGGACTCCAGACACTTCAACCAGAGTGAGTGGGACCGCTGGA
 AACTTTGCACCACCTTTGGCTTCATGGAGCTCAACTACTCCTTGGTGCAGAAGTTCGTGACACGCTTC
 CCTCCAGTGCCCAAGCAGCAGCTGCTCCTGGCCAGCCTCCCCGCTGGGAGCCTCCGGTGCATCACCTGTG
 CCGTGGTGGGCAACGGGGGCATCCTGAACAACCTCCACATGGGCCAGGAGATAGACAGTCACGACTACGT
 GTTCCGATTGAGCGGAGCTCTCATTAAAGGCTACGAACAGGATGTGGGGACTCGGACATCCTTCTACGGC
 TTTACCGCCTTCTCCCTGACCCAGTCACTCCTTATATTGGGCAATCGGGGTTTCAAGAACGTGCCTCTTG
 GGAAGGACGTCCGCTACTTGCACTTCTGGAAGGCACCCGGGACTATGAGTGGCTGGAAGCACTGCTTAT
 GAATCAGACGGTATGTCAAAAACTTTTCTGGTTCAGGCACAGACCCAGGAAGCTTTTCGGGAAGCC
 CTGCACATGGACAGGTACCTGTTGCTGCACCCAGACTTTCTCCGATACATGAAGAACAGGTTTCTGAGGT
 CTAAGACCCTGGATGGTGCACCTGGAGGATATACCGCCCACTGGGGCCCTCCTGCTGCTCACTGC
 CCTTCAGCTCTGTGACCAGGTGAGTGCTTATGGCTTCATCACTGAGGGCCATGAGCGCTTTTCTGATCAC
 TACTATGATACATCATGGAAGCGCTGATCTTTTACATAAACCATGACTTCAAGCTGGAGAGAGAAGTCT
 GGAAGCGCTACACGATGAAGGGATAATCCGGCTGTACCAGCGTCTGGTCCCAGGAACTGCCAAAGCCAA
 GAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238401 representing NM_001289107
 Red=Cloning site Green=Tags(s)

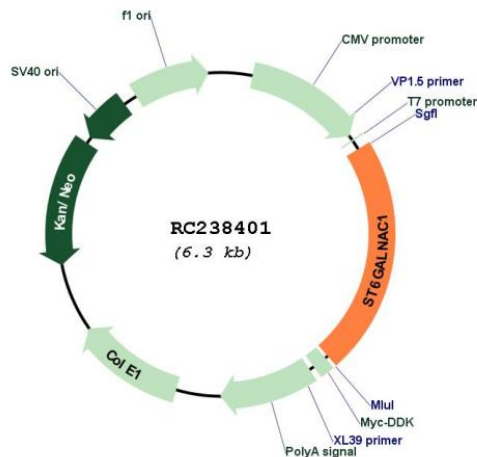
MVNTLSPRGQDAGMASGRTEAQSWSQDQTKTTQNGGQTRKLTASRTVSEKHQGKAATAKTLIPKSQHR
 MLAPTGAIVSTRTRQKGVTTAVIPPKEKKPQATPPPAPFQSPPTQRNQLKAAANFKSEPRWDFEEKYSFEI
 GGLQTTCPDSVKIKASKSLWLQKFLPNLTLFLDSRHFNQSEWDRLEHFAPPFGMELNYSLVQKVVTRF
 PPVPQQQLLLASLPAGSLRCITCAVVGNGGILNNSHMGEIDSHDYVFRLSGALIKGYEQDVGTRTSFYG
 FTAFLSTQSLILGNRGFKNVPLGKDVRYLHFLEGRDYEWLEALLMNQTVMSKNLFWFRHRPQEAFFREA
 LHMDRYLLHPDFLRMKNRFLRSKTLDGAHWRIYRPTTGALLLTLALQLCDQVSAYGFITEGHERFSDH
 YYDTSWKRLIFYINHDFKLEREVWKRLHDEGIIRLYQRPGPGTAKAKN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_001289107

ORF Size: 1404 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001289107.2](#)

RefSeq Size: 2730 bp

RefSeq ORF: 1407 bp

Locus ID: 55808

Cytogenetics: 17q25.1

Protein Families: Transmembrane

Protein Pathways: Metabolic pathways, O-Glycan biosynthesis

MW: 54 kDa

Gene Summary: Glycosylation of proteins affects cell-cell interaction, interactions with the matrix, and the functions of intracellular molecules. ST6GALNAC1 transfers a sialic acid, N-acetylneuraminic acid (NeuAc), in an alpha-2,6 linkage to O-linked GalNAc residues. The cancer-associated sialyl-Tn (sTn) antigen is formed by ST6GALNAC1-catalyzed sialylation of GalNAc residues on mucins (Ikehara et al., 1999 [PubMed 10536037]; Sewell et al., 2006 [PubMed 16319059]). [supplied by OMIM, Mar 2008]