

Product datasheet for **RC216697**

ST6GALNAC1 (NM_018414) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ST6GALNAC1 (NM_018414) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ST6GALNAC1
Synonyms:	HSY11339; SIAT7A; ST6GalNAcI; STYI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC216697 representing NM_018414
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGGTCTGCCTGTGGAGATGCAGGCACCTGAGCCAAGGCGTCCAGTGGTCTTGTCTTGCTGTCC
 TGGTCTTCTTTCTTTCGCCTTGCCTCTTTTATTAAGGAGCCTCAAACAAGCCTTCCAGGCATCAACG
 CACAGAGAACATTAAAGAAAGGTCTCTACAGTCCCTGGCAAAGCCTAAGTCCCAGGCACCCACAAGGGCA
 AGGAGGACAACCATCTATGCAGAGCCAGTCCAGAGAACAATGCCCTCAACACACAAAACCCAGCCAAAGG
 CCCACACCACCGGAGACAGAGGAAAGGAGGCCAACCCAGGCACCGCCGAGGAGCAGGACAAGGTGCCCA
 CACAGCACAGAGGGCAGCATGGAAGAGCCAGAAAAAGAGAAAACCATGGTGAACACACTGTCACCCAGA
 GGGCAAGATGCAGGGATGGCCTCTGGCAGGACAGAGGCACAATCATGGAAGAGCCAGGACACAAAGACGA
 CCCAAGGAAATGGGGCCAGACCAGGAAGCTGACGGCCTCCAGGACGGTGTGAGAGAAGCACCAGGGCAA
 AGCGGCAACCACAGCCAAGACGCTCATTCCAAAAGTCAGCACAGAATGTGGCTCCACAGGAGCAGTG
 TCAACAAGGACGAGACAGAAAGGAGTGACCACAGCAGTCATCCACCTAAGGAGAAGAAACCTCAGGCCA
 CCCACCCCTGCCCCTTTCAGAGCCACGACGCAGAGAAACCAAAGACTGAAGGCCGCCAACTTCAA
 ATCTGAGCCTCGGTGGGATTTTGTAGAAAAATACAGCTTCGAAATAGGAGGCCTTCCAGCAGCTTGCCT
 GACTCTGTGAAGATCAAAGCCTCCAAGTCGCTGTGGCTCCAGAACTCTTCTGCCAACCTCACTCTCT
 TCCTGGACTCCAGACACTTCAACCAGAGTGAAGTGGGACCGCTGGAACACTTTGCACCACCTTTGGCT
 CATGGAGCTCAACTACTCCTTGGTGCAGAAGGTCGTGACACGCTTCCCTCCAGTGCCCAAGCAGCAGCTG
 CTCTGCCAGCCTCCCCGCTGGGAGCCTCCGGTGCATCACCTGTGCCGTGGTGGCAACCGGGGGCATCC
 TGAACAACCTCCACATGGGCCAGGAGATAGACAGTCACGACTACGCTGTTCCGATTGAGCGGAGCTCTCAT
 TAAAGGCTACGAACAGGATGTGGGACTCGGACATCCTTCTACGGCTTTACCGCCTTCTCCCTGACCCAG
 TCACTCCTTATATTGGGCAATCGGGTTTCAAGAAGCTGCCTTGGGAAGGACGTCGCTACTTGCCT
 TCCTGGAAGGCACCCGGGACTATGAGTGGCTGGAAGCACTGCTTATGAATCAGACGGTGTGTAACAAAA
 CCTTTTCTGGTTCAGGCACAGACCCAGGAAGCTTTTTCGGGAAGCCCTGCACATGGACAGGTACCTGTTG
 CTGACCCAGACTTTCTCCGATACATGAAGAAGGTTTCTGAGGTCTAAGACCTGGATGGTGGCCACT
 GGAGGATATACCGCCCAACTGGGGCCTCCTGCTGCTCACTGCCCTCAGCTCTGTGACCAGGTGAG
 TGCTTATGGCTTCATCACTGAGGGCCATGAGCGCTTTTCTGATCACTACTATGATACATCATGGAAGCGG
 CTGATCTTTTACATAAACCATGACTTCAAGCTGGAGAGAGAAGTCTGGAAGCGGCTACACGATGAAGGGA
 TAATCCGCTGTACCAGGCTCCTGGTCCCGAACTGCCAAAGCCAAGAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC216697 representing NM_018414
 Red=Cloning site Green=Tags(s)

MRSCLWRCRHL SQGVQWSLLAVLVFFLALPSFIKEPQTKPSRHQRTEIKERSLQSLAKPKSQAPTRA
 RRTTIYAEPVPENNALNTQTQPKAHTTGDRGKEANQAPPEEQDKVPHTAQRAAWKSPEKEKTMVNTLSR
 GQDAGMASGRTEAQSWSQDTKTTQNGGQTRKLTASRTVSEKHQGAATAKTLIPKSQHRMLAPTGA
 STRTRQKGVTTAVIPPKEKKPQATPPPAPFQSPTTQRNQLKAANFKSEPRWDFEEKYSFEIGGLQTTCP
 DSVKIKASKSLWLQKFLPNLTLFLDSRHFNQSEWDRLEHFAPPFGMELNYSLVQKVVTFRPPVPQQQL
 LLASLPAGSLRCITCAVVGNGGILNNSHMGEIDSHDYVFRLSGALIKGYEQDVGTRTSFYGFTAFSLTQ
 SLLILGNRGFKNVPLGKDVRYLHFLEGRDYEWLEALLMNQTVMSKNLFWFRHRPQEAFFREALHMDRYLL
 LHPDFLRMYKNRFLRSKTL DGAHWRIYRPTTGALLLLTALQLCDQVSAFYFITEGHERFSDHYDYTSWKR
 LIFYINHDFKLEREVWKRLHDEGIIRLYQRPGPGTAKAKN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6161_c09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018414

ORF Size: 1800 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_018414.5](#)

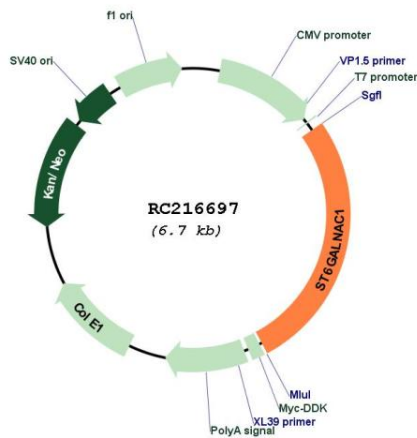
RefSeq Size: 2437 bp

RefSeq ORF: 1803 bp

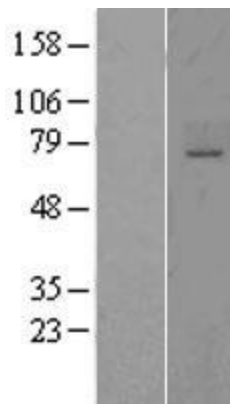
Locus ID: 55808

UniProt ID:	Q9NSC7
Cytogenetics:	17q25.1
Domains:	Glyco_transf_29
Protein Families:	Transmembrane
Protein Pathways:	Metabolic pathways, O-Glycan biosynthesis
MW:	68.4 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]

Product images:



Circular map for RC216697



Western blot validation of overexpression lysate (Cat# [LY402680]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216697 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).