

Product datasheet for **MG210156**

Stt3a (BC037612) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Stt3a (BC037612) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Stt3a |
| Synonyms: | AA408947; BB081708; ltm1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>MG210156 representing BC037612
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACTAAGCTTGGATTTTTGCGATTGTCCTATGAGAAGCAGGACACACTTCTAAAGCTTCTCATCCTGT
 CGATGGCTGCTGTGTTATCTTTTTCTACTCGTCTTTTTGCTGTGCTGAGATTTGAAAAGTGCATCCATGA
 GTTTGATCCGTACTTTAATTATCGGACTACCCGGTTTCTGGCTGAGGAGGGGTTTTATAAATCCATAAC
 TGGTTTGTGACCGGGCTTGGTACCCTTTGGGCCGAATCATTGGAGGAACAATTTACCCAGGTTTAAATGA
 TCATTCTGCTGCAATCTACCATGTACTCCATTCTTCCATATCACTATTGACATTCCGAATGTCTGTGT
 TTTCTGGCCCCACTTTCTCCTCTTCCACCACCATCGTTACGTACCACCTTACCAAAGAGCTCAAGGAT
 GCAGGAGCTGGGCTTCTGCTGCTGCCATGATTGCTGTAGTTCCTGGGTATATTTCTCGACTGTAGCTG
 GCTCCTATGATAATGAAGGAATTGCTATCTTTGTCATGCTGCTTACTTACTACATGTGGATCAAGGCAGT
 GAAGACTGGTCCATCTATTGGGCTGCCAAGTGTGCCCTCGCTTATTTCTACATGGTCTCTTCATGGGGA
 GGCATGTGTTCCCTGATCAACTTGATTCCCTCTACATGTCCCTGGTCTAATGCTGACAGGCCGTTTTTCTC
 ACCGGATCTACGTAGCCTACTGTACTGTTACTGCCTGGGCACCATTTCTTCTATGCAGATTTCCCTTTGT
 TGGTTTCCAGCCCGTCTTTTCATCAGAACATGGCAGCCTTTGGAGTGTGGTCTCTGTGAGTCCAT
 GCTTTCGTAGATTACCTGCGCAGCAAGTTGAATCCACAGCAATTCGAAGTCTTTTCCGGAGTGTATCT
 CCCTGGTTGGCTTTGCTCCTCACTGTGGGAGCTCCTCATGCTAACAGGAAAAATTTCTCCCTGGAC
 AGGGCGTTTCTACTCTGCTGGATCCCTCTTATGCTAAGAATAACATTTCCATTTATGCATCTGTTTCT
 GAGCACCAGCCCACAACCTGGTCTTCTACTATTTGATCTACAGCTCCTGTCTTCATGTTTCCAGTTG
 GCCTCTATTACTGCTTTAGCAACCTGTCTGATGCTCGGATTTTTATCATCATGTATGGTGTGACCAGCAT
 GTACTTTTCAGCTGTAATGGTGCGTCTAATGCTGGTATTGGCACCTGTTATGTGCATTCTTCTGGCATT
 GGTGTTTCCAGGTGCTGTCCACATATATGAAAAATCTGGACATAAGTCGCCAGACAAGAAGAGCAAGA
 AGCAACAGGATTCTACTTACCCTATTAAGAATGAGGTGGCGAGTGGGATGATACTGGTCAATGGCTTTTTT
 TCTCATCACCTACACGTTTCATTCGACTTGGGTGACCAGTGAAGCCTATTCTTCTCCCTCCATTGTACTG
 TCTGCTCGTGGTGGGATGGCAGTAGGATCATTTTTGATGACTCCGAGAAGCGTATTATTGGCTCCGTC
 ACAATACTCCAGAGGATGCAAAAGTCATGTCATGGTGGGATTATGGCTACCAAATTAAGTCAATGGCAAA
 TCGGACAATTTAGTGGACAATAACACATGGAATAATACCCATATTTCTCGAGTAGGGCAGGCAATGGCA
 TCCACAGAAGAAAAGCCTATGAAATCATGAGGGAGCTTGATGTCAGCTATGTGCTTGTCAATTTTGGAG
 GCCTTACTGGGTATTCTTCGGATGATATCAACAAGTTCTTTGGATGGTCCGGATTGGAGGAAGCACAGA
 GACAGGAAGACATTAAGGAGAATGACTACTATACTCCTACTGGGAATTCCTGTTGATCGTGAGGGT
 TCTCCGGTGTGCTCAACTGCCTTATGTACAAAATGTGTTACTACCGCTTTGGGCAGGTCTACACAGAAG
 CCAAGCGTCCACCAGGCTTTGACCGTGTTCGAAATGCTGAGATTGGTAATAAAGACTTTGAGCTTGATGT
 CCTGGAGGAAGCGTATACCACAGAACAACCTGGCTAGTCAGGATATACAAGGTAAGGACCTGGATAATCGA
 GGCTTGTCAAGGACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210156 representing BC037612
 Red=Cloning site Green=Tags(s)

MTKLGFLRLSYEKQDTLLKLLILSMAAVLSFSTRLFAVLRFEVSIHEFDYPFNRYTRFLAEEGFYKFHN
 WFDDRAWYPLGRIIGGTIYPGLMITSAAIYHVLHFFHITIDIRNVCVFLAPLFSSFTTIVTYHLTKELKD
 AGAGLLAAMIIVPGYISRSVAGSYDNEGIAIFCMLLTYYMWIKAVKTGSIYAAKCALAYFYMVSSWG
 GYVFLINLIPLHVLVLMLTGRFSHRIYVAYCTVYCLGTILSMQISFVGFQPVLSSEHMAAFGVFGLCQIH
 AFVDYLRSKLNPQQFEVLFRSVISLVGFVLLTVGALLMLTGKISPWTGRFYSLLDPSYAKNNIPIIASVS
 EHQPPTWSSYYFDLQLLVFMFPVGLYYCFSNLSDARIFIIMYGVTSMYFSAVMVRMLVLAPVMCILSGI
 GVSQVLSTYMKNLDISRPDKSKKQDSTYPIKNEVASGMILVMAFFLITYTFHSTWVTSEAYSSPSIVL
 SARGGDSRIIFDDFREAYYWL RHNTPEDAKVMSWWDYGYQITAMANRTILVDNNTWNNTHSRVGQAMA
 STEEKAYEIMRELDVSYVLVIFGGLTGYSSDDINKFLWMVRIGGSTETGRHIKENDYYTPTGEFRVDREG
 SPVLLNCLMYKMCYYRFQVYTEAKRPPGFDRVRNAEIGNKDFELDVLEEAYTTEHWLVRIYKVKDLNDR
 GLSRT

TRTRPLE - GFP Tag - V

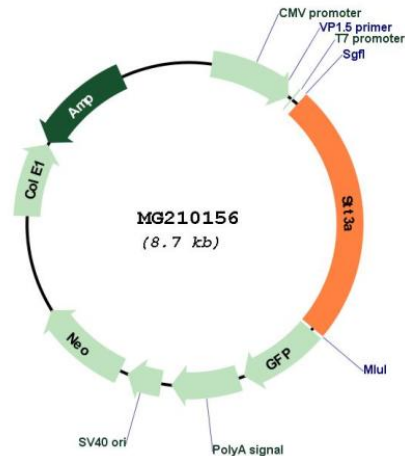
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: BC037612

ORF Size: 2117 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: [BC037612](#), [AAH37612](#)

RefSeq Size: 2736 bp

RefSeq ORF: 2117 bp

Locus ID: 16430

Cytogenetics: 9 20.67 cM

Gene Summary: Catalytic subunit of the oligosaccharyl transferase (OST) complex that catalyzes the initial transfer of a defined glycan (Glc(3)Man(9)GlcNAc(2) in eukaryotes) from the lipid carrier dolichol-pyrophosphate to an asparagine residue within an Asn-X-Ser/Thr consensus motif in nascent polypeptide chains, the first step in protein N-glycosylation. N-glycosylation occurs cotranslationally and the complex associates with the Sec61 complex at the channel-forming translocon complex that mediates protein translocation across the endoplasmic reticulum (ER). All subunits are required for a maximal enzyme activity. This subunit contains the active site and the acceptor peptide and donor lipid-linked oligosaccharide (LLO) binding pockets (By similarity). STT3A is present in the majority of OST complexes and mediates cotranslational N-glycosylation of most sites on target proteins, while STT3B-containing complexes are required for efficient post-translational glycosylation and mediate glycosylation of sites that have been skipped by STT3A (By similarity).[UniProtKB/Swiss-Prot Function]