

Product datasheet for **MG210829**

Stt3b (NM_024222) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Stt3b (NM_024222) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Stt3b
Synonyms:	1300006C19Rik; Simp
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG210829 representing NM_024222
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

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 TGGCTCTGGGGAACAGCCGCCACGGGCACCATGGGCCCGAACCCAGAGCGCGTCCAGGGCGCGCGCC
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ACGGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG210829 representing NM_024222
Red=Cloning site Green=Tags(s)

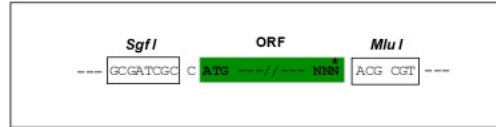
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APDNRETLGHKPRVTNIVPKQKYL SKKTTKRKRGYVKNKLVFKKGKKT SKKTV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



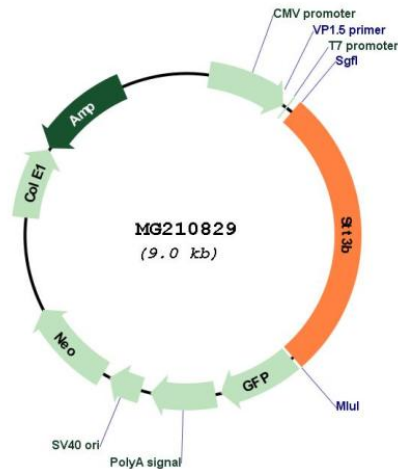
```

                    Kozac
                    Consensus
                    Sgf I   Asc I
                    _____
            EcoR I   BamH I Kpn I   RBS
            _____
            CTATAGGGCGGCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGGCCAGATCT

            Hind III   Nhe I   Rsr II   Mlu I           Not I   Xho I           GFP Tag
            _____
            CAAGCTTAACTAGCTAGCGGACCG   ACG CGT   ACG CGG   CCG CTC GAG   ATG GAG AGC GAC - - - -
                T   R   T   R   P   L   E   M   E   S   D   -   -   -
            _____

                    Pme I   Fse I
            _____
            - - - - - GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT
                -   -   E   E   R   V   Stop
    
```

Plasmid Map:



ACCN: NM_024222

ORF Size: 2469 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_024222.3](#)

RefSeq Size: 4236 bp

RefSeq ORF: 2472 bp

Locus ID: 68292

UniProt ID: [Q3TDQ1](#)

Cytogenetics: 9 F3

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). STT3B is present in a small subset of OST complexes and mediates both cotranslational and post-translational N-glycosylation of target proteins: STT3B-containing complexes are required for efficient post-translational glycosylation and while they are less competent than STT3A-containing complexes for cotranslational glycosylation, they have the ability to mediate glycosylation of some nascent sites that are not accessible for STT3A. STT3B-containing complexes also act post-translationally and mediate modification of skipped glycosylation sites in unfolded proteins. Plays a role in ER-associated degradation (ERAD) pathway that mediates ubiquitin-dependent degradation of misfolded endoplasmic reticulum proteins by mediating N-glycosylation of unfolded proteins, which are then recognized by the ERAD pathway and targeted for degradation (By similarity). [UniProtKB/Swiss-Prot Function]