

Product datasheet for **RG218152**

Staufen (STAU1) (NM_001037328) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Staufen (STAU1) (NM_001037328) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	STAU1
Synonyms:	PPP1R150; STAU
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG218152 representing NM_001037328
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAAACTTGAAAAAACAATGTATAAGCCTGTTGACCCTTACTCTCGGATGCAGTCCACCTATAACT
 ACAACATGAGAGGAGGTCTTATCCCCGAGGACTTTTTACCCATTTCCAGTTCCACCTTTACTTTATCA
 AGTGGAACCTTTCTGTGGGAGGACAGCAATTTAATGGCAAAGGAAAAGACAAGACAGGCTGCCAAAACACGAT
 GCTGCTGCCAAAGCGTTGAGGATCTGCAGAATGAGCCCCTGCCAGAGAGGCTGGAGGTGAATGGAAGAG
 AATCCGAAGAAGAAAATCTCAATAAATCTGAAATAAGTCAAGTGTGTTGAGATTGCACTTAAACGGAACCT
 GCCTGTGAATTTGAGTCTTTCCCTCTGAAACAGGTGGCCCGGGAGAGTGGCCACCCACATGAAGAAC
 TTTGTACCAAGTTCGGTTGGGGAGTTGTGGGGGAAGGTGAAGGGAAAAGCAAGAAGATTTCAAAGA
 AAAATGCCGCCATAGCTGTTCTTGAGGAGCTGAAGAAGTTACCGCCCCTGCCTGCAGTTGAACGAGTAAA
 GCCTAGAATCAAAAAGAAAACAAAACCCATAGTCAAGCCACAGACAAGCCAGAATATGGCCAGGGGATC
 AATCCGATTAGCCGACTGGCCCAGATCCAGCAGGCAAAAAGGAGAAGGAGCCAGAGTACACGCTCTCA
 CAGAGCGAGGCTCCCGCGCCGACAGGGAGTTGTGATGCAGGTGAAGTTGGAAACCACACTGCAGAAGG
 AACGGGCACCAACAAGAAGGTGGCCAAGCGCAATGCAGCCGAGAACATGCTGGAGATCCTTGGTTTCAA
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 ATGGAAGAAAAGTAACCTTTTTTGAACCTGGCTCTGGGGATGAAAATGGGACTAGTAATAAAGAGGATGA
 GTTCAGGATGCCTTATCTAAGTCATCAGCAGCTGCCTGCTGGAATTTCTCCATGGTGCCCGAGGTGC
 CAGGCTGTAGGAGTTAGTCAAGGACATCACACCAAGATTTTACCAGGGCAGCTCCGAATCTGCCAAGG
 CCACGGTAACTGCCATGATAGCCCGAGAGTTGTGTATGGGGGCACCTCGCCACAGCCGAGACCATTTT
 AAAGAATAACATCTCTTCAGGCCACGTACCCCATGGACCTCTCAGGAGACCCTCTGAGCAACTGGACTAT
 CTTTCCAGAGTCCAGGGATTCCAGGTTGAATACAAGACTTCCCAAAAAACAAGAACGAATTTGTAT
 CTCTTATCAATTGCTCCTCTCAGCCACCTCTGATCAGCCATGGTATCGGCAAGGATGTGGAGTCTGCCA
 TGATATGGCTGCGCTGAACATCTTAAAGTTGCTGTCTGAGTTGGACCAACAAAGTACAGAGATGCCAAGA
 ACAGGAAACGGACCAATGTCTGTGTGGGAGGTGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG218152 representing NM_001037328
 Red=Cloning site Green=Tags(s)

MKLGKKPMYKVPDPYSRMQSTYNYNMRGGAYPPRYFYPFPVPLLYQVELSVGGQFNGKGTQRAAKHD
 AAKALRILQNEPLPERLEVNGRESEENLNKSEISQVFEIALKRNLVNFESFPLKQVARESGPPHMKN
 FVTKVSVGEFVGEGEGKSKKISKKNAAIAVLEELKKLPPLPAVERVKPRIKKTKPIVKPQTSPEYQGI
 NPISRLAQIQAKKEKEPEYTLTTERGLPRRREFVMQVKVGNHTAEGTGNKKVAKRNAENMLEILGFK
 VPQAQPTKPAKSEEKTPIKKPGDGRKVTFFEPGSGDENGTSNKEDEFRMPYLSHQQLPAGILPMVPEVA
 QAVGVSQGHHTKDFTRAAPNPAKATVTAMIARELLYGGTSPETAETILKNNISSGHVPHGPLTRPSEQLDY
 LSRVQGFQVEYKDFPKNNKNEFVSLINCSQPPLISHGIGKDVESCHDMAALNLIKLLSELDQQSTEMPR
 TGNPMSVCGRC

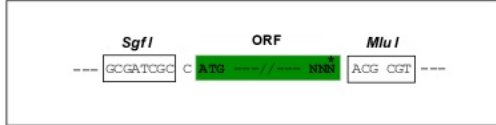
TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Kozac
Consensus

EcoR I BamH I Kpn I RBS Sgf I Asc I

CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

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 --- --- ---

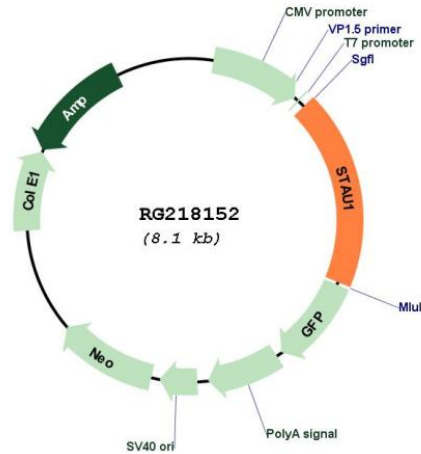
T R T R P L E M E S D - - -

Pme I Fse I

--- --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT

- - - E E R V Stop

Plasmid Map:



ACCN: NM_001037328

ORF Size: 1506 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_001037328.2](#), [NP_001032405.1](#)

RefSeq Size: 3540 bp

RefSeq ORF: 1509 bp

Locus ID: 6780

UniProt ID: [O95793](#)

Cytogenetics: 20q13.13

Gene Summary: Staufen is a member of the family of double-stranded RNA (dsRNA)-binding proteins involved in the transport and/or localization of mRNAs to different subcellular compartments and/or organelles. These proteins are characterized by the presence of multiple dsRNA-binding domains which are required to bind RNAs having double-stranded secondary structures. The human homologue of staufen encoded by STAU, in addition contains a microtubule-binding domain similar to that of microtubule-associated protein 1B, and binds tubulin. The STAU gene product has been shown to be present in the cytoplasm in association with the rough endoplasmic reticulum (RER), implicating this protein in the transport of mRNA via the microtubule network to the RER, the site of translation. [provided by RefSeq, Apr 2020]