

Product datasheet for **RG219605**

SAP155 (SF3B1) (NM_012433) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SAP155 (SF3B1) (NM_012433) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SF3B1
Synonyms:	Hsh155; MDS; PRP10; PRPF10; SAP155; SF3b155
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG219605 ORF sequence, codon optimized . Due to the complexity of NM_012433, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCGAAGATCGCCAAGACTCACGAAGATATTGAAGCACAGATTCGAGAAATTC AAGGCAAGAAGGCAG
CTCTTGATGAAGCTCAAGGAGTGGGCTCGATTCTACAGGTTATTATGACCAGGAAATTTATGGTGGAAAG
TGACAGCAGATTTGCTGGATACGTGACATCAATTGCTGCAACTGAACTTGAAGATGATGACGATGACTAT
TCATCATCTACGAGTTTGCTTGGTCAGAAGAAGCCAGGATATCATGCCCTGTGGCATTGCTTAATGATA
TACCACAGTCAACAGAACAGTATGATCCATTTGCTGAGCACAGACCTCAAAGATTGCAGACCGGGAAGA
TGAATACAAAAGCATAGGCGGACCATGATAATTTCCCAGAGCGTCTTGATCCTTTGCAGATGGAGGG
AAAACCCCTGATCCTAAAATGAATGCTAGGACTTACATGGATGTAATGCGAGAACAACACTTGACTAAAG
AAGAACGAGAAATTAGGCAACAGCTAGCAGAAAAGCTAAAGCTGGAGAATAAAAGTCGTAATGGAGC
AGCAGCGTCCCAGCCTCCATCAAACGAAAACGGCGTTGGGATCAAACAGCTGATCAGACTCCTGGTGCC
ACTCCCAAAAATATCAAGTTGGGATCAGGCAGAGACCCCTGGGCATACTCCTTCTTAAGATGGGATG
AGACACCAGGTCGTGCAAAGGGAAGCGAGACTCCTGGAGCAACCCAGGCTCAAAAATATGGGATCCTAC
ACCTAGCCACACACCAGCGGGAGCTGCTACTCCTGGACGAGGTGATACACCAGGCCATGCGACACCAGGC
CATGGAGCGCAACTTCCAGTGCTCGTAAAAACAGATGGGATGAAACCCCAAAAACAGAGAGAGATACTC
CTGGGCATGGAAGTGGATGGGCTGAGACTCCTCGAACAGATCGAGGTGGAGATTCTATTGGTGAACACC
GACTCCTGGAGCCAGTAAAAGAAAATCACGGTGGGATGAAACACCAGCTAGTCAGATGGGTGGAAGCACT
CCAGTTCTGACCCCTGAAAAGACACCAATTGGCACACCAGCCATGAACATGGCTACCCCTACTCCAGGTC



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ACATAATGAGTATGACTCCTGAACAGCTTCAGGCTTGGCGGTGGGAAAGAGAAATTGATGAGAGAAATCG
CCCACCTTCTGATGAGGAATTAGATGCTATGTTCCCAGAAGGATATAAGGTACTTCTCCTCCAGCTGGT
TATGTTCTATTGAACTCCAGCTCGAAAGCTGACAGCTACTCCAACACCTTTGGGTGGTATGACTGGTT
TCCACATGCAAAGTGAAGATCGAACTATGAAAAGTGTTAATGACCAGCCATCTGGAATCTTCCATTTTT
AAAACCTGATGATTTCAATACTTTGATAAACTATTGGTTGATGTTGATGAATCAACACTTAGTCCAGAA
GAGCAAAAAGAGAGAAAAATAATGAAGTTGCTTTTAAAAATTAAGAATGGAACACCACCAATGAGAAAGG
CTGCATTGCGTCAGATTACTGATAAAGCTCGTGAATTTGGAGCTGGTCCTTTGTTAATCAGATTCTTCC
TCTGCTGATGTCCTACACTTGAGGATCAAGAGCGTCATTTACTTGTGAAAGTTATTGATAGGATCTG
TACAAACTTGATGACTTAGTTCGTCCATATGTGCATAAGATCCTCGTGGTCATTGAACCGCTATTGATTG
ATGAAGATTACTATGCTAGAGTGAAGGCCGAGAGATCATTTCTAATTTGGCAAAGGCTGCTGGTCTGGC
TACTATGATCTCTACCATGAGACCTGATATAGATAACATGGATGAGTATGTCCGTAACACAACAGCTAGA
GCTTTTGTGTTGTAGCCTCTGCCCTGGCATTCTTCTTTATTGCCCTTCTTAAAAGCTGTGTGCAAAA
GCAAGAAGTCTGGCAAGCGAGACACACTGGTATTAAGATTGTACAACAGATAGCTATTCTTATGGGCTG
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GTTCCGACCATCAGTGTCTTGGCCATTGCTGCCTTGGCTGAAGCAGCAACTCCTTATGGTATCGAATCTT
TTGATTCTGTGTTAAAGCCTTTATGGAAGGGTATCCGCCAACACAGAGGAAAGGGTTTGGCTGCTTCTT
GAAGGCTATTGGGTATCTTATTCCTCTTATGGATGCAGAAATGCAACTACTATACTAGAGAAGTGATG
TTAATCCTTATTCGAGAATTCAGTCTCCTGATGAGGAAATGAAAAAATTTGTGCTGAAGGTGGTAAAAAC
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CTTCTGGCAGCACAGGATGGCTTTGGATAGAAGAAATTACCGACAGTTAGTTGATACTACTGTGGAGTTG
GCAAAACAAAGTAGGTGCAGCAGAAATTATCCAGGATTGTGGATGATCTGAAAGATGAAGCCGAACAGT
ACAGAAAAATGGTATGGAGACAATTGAGAAGATTATGGGAACTCGGGGCGGCAGACATTGATCATAA
GCTCGAAAAACAGCTGATCGACGGGATCCTGTATGCATTTCAAGGACAGACCAGGAAGACTCAGTGTG
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GCACTGTGCTGTGGAGTTGAATAACAATCTGCCAAAGTTAGACAGCAGGCAGCCGATCTCATTCTCG
GACCGCAGTGGTTATGAAGACATGTGAGGAGAAAAGTTGATGGGACATTTGGGTGATGCTCTACGAA
TACTTGGGGGAAGAATATCCCGAAGTGTGCGCTCCATCCTCGGCGCGCTGAAGGCAATCGTAAATGTTA
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GCTGAACAATCTGAAAGTTCAGGAACGGCAGAACAGGGTGTGTACGACCTGGCCATTGCCATTGTGGCT
GAAACGTGTAGCCCTTACCGTCTGCCCCTCATGAACGAGTACCGCGTCCCGGAGTTGAACGTGC
AGAACGGGGTCTCAAGAGTCTGAGCTTTTGTTCGAGTATATCGGAGAGATGGGCAAAGACTACATTTA
CGCAGTGACCCCACTTCTGGAAGACGCCCTGATGGACCGGATCTGGTCCACAGGACAGCCGCTTCCGCT
GTTGTCCAGCATATGAGTCTCGGAGTTTATGGATTGCGCTGTGAGGACAGTCTGAATCATTTGCTTAACT
ATGTATGGCCCAACGTGTTTGAACCTCCCTCATGTTATTCAGGCCGTGATGGGAGCTCTTGGGGGCT
CCGGGTAGCAATCGCCCTGCCGATGCTGCAGTACTGCCTCCAGGGGCTTCCATCCTGCAAGGAAA
GTGAGAGATGTTTATTGGAAGATCTACAACAGTATTTACATAGGGTCCCAAGACGCTTTGATTGCTCACT
ACCTCGGATCTACAATGACGACAAGAATACTTACATTAGGTACGAACTGGACTACATTCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG219605 representing NM_012433
 Red=Cloning site Green=Tags(s)

MAKIAKTHEDIEAQIREIQGKKAALDEAQVGLDSTGYDQEIYGGSDSRFAGYVTSIAATELEDDDDDDY
 SSSTSLLGQKPGYHAPVALLNDIPQSTEQYDPFAEHRPPKIADREDEYKHRRTMIIISPERLDPFADGG
 KTPDPKMNARTYMDVMREQHLTKEEREIRQQLAEKAGELKVVNGAAASQPPSKRKRWDQTADQTPGA
 TPKKLSSWDQAETPGHTPSLRWDETPGRAKGSETPGATPGSKIWDPTPSHTPAGAATPRGDTPGHATPG
 HGGATSSARKNRWDETPKTERDTPGHGSGWAETPRTRDRGGDSIGETPTPGASKRKSRWDETPASQMGGST
 PVLTPGKTPIGTPAMNMTPTPGHIMSMTPEQLQAWRWEREIDERNRPLSDEELDAMFPEGYKVLPPPAG
 YVPIRTPARKLTATPTPLGGMTGFHMQTEDRTMKS VNDQPSGNLPFLKPD DIQYFDKLLVDVDESTLSPE
 EQKERKIMKLLLIKNGTPPMRKAALRQITDKAREFGAGPLFNQILPLMSPTLEDQERHLLVKVIDRIL
 YKLDDLVRPYVHKILVVEIPELLIDEDYYARVEGREIISNLAKAAGLATMISTMRPDIDNMEYVRNTTAR
 AFVAVASALGIPSLPFLKAVCKSKKSWQARHTGIKIVQQAIALMGCAILPHLRSVVEIEHGLVDEQKQK
 VRTISALATAALAEAATPYGIESFDSVLKPLWKGIRQHRGKGLAAFLKAIGYLIPLMDAEYANYYTREVM
 LILIREFQSPDEEMKKIVLVKVKQCCGTDGVEANYIKTEILPPFFKHFQHRMALDRRNYRQLVDTTVEL
 ANKVGAAEIIISRIVDDLKDEAEQYRKMVMETIEKIMGNLGAADIDHKLEEQLIDGILYAFQEQTTEDSVM
 LNGFGTVVNALGKRVKPYLPQICGTVLWRLNNSAKVVRQAADLISRTAVVMKTCQEEKLMGHLGVVLYE
 YLGEEYPEVLGSILGALKAI VNVIGMHKMTPIKDLLPRLTPILKNRHEKVQENCIDLVGRIADRGA EYV
 SAREWMRICFELLELLKAHKAI RRATVNTFGYIAKAIGPHDVLATLLNNLKVQERQNRVCTTVAIAIVA
 ETCSPFTVLPALMNEYRVP E LNVQNGVLKSLSFLFEYIGEMGKDYIYAVTPLLEDALMDRDLVHRQTASA
 VVQHMSLGVYGFGECDLNLHLLNYVWPNVFETSPHVIQAVMGALEGLRVAIGPCRMLQYCLQGLFHPARK
 VRDYYWKIYNSIYIGSQDALIAHYPRIYNDKNTYIRYELDYIL

TRTRPLE - GFP Tag - V

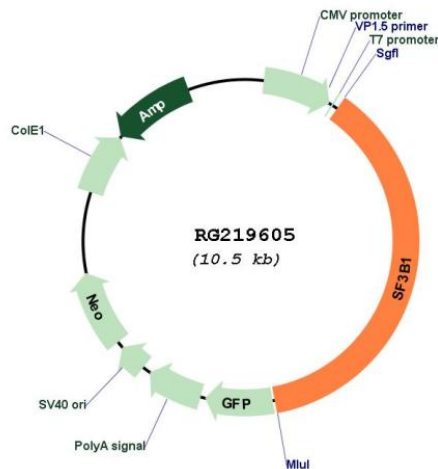
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_012433

ORF Size: 3912 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_012433.2](#), [NP_036565.2](#)

RefSeq Size: 4338 bp

RefSeq ORF: 3915 bp

Locus ID: 23451

UniProt ID: [O75533](#)

Cytogenetics: 2q33.1

Protein Pathways: Spliceosome

Gene Summary: This gene encodes subunit 1 of the splicing factor 3b protein complex. Splicing factor 3b, together with splicing factor 3a and a 12S RNA unit, forms the U2 small nuclear ribonucleoproteins complex (U2 snRNP). The splicing factor 3b/3a complex binds pre-mRNA upstream of the intron's branch site in a sequence independent manner and may anchor the U2 snRNP to the pre-mRNA. Splicing factor 3b is also a component of the minor U12-type spliceosome. The carboxy-terminal two-thirds of subunit 1 have 22 non-identical, tandem HEAT repeats that form rod-like, helical structures. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]