

## Product datasheet for **RG201196**

### SUPT5H (NM\_003169) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SUPT5H (NM_003169) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SUPT5H
Synonyms:	SPT5; SPT5H; Tat-CT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201196 representing NM_003169 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGGACAGCGAGGACAGCACTTTCCGAGGAGGAGGACAGCGAGCGCAGCAGTGACGGCGAGGAGG  
CCGAGGTAGACGAAGAGCGGGGAGTGCAGCGGGCAGTGAGAAAGAAGAAGAGCCTGAGGACGAAGAGGA  
GGAGGAAGAGGAGGAGGAATATGATGAGGAAGAGGAAGAAGAAGATGATGACCGACCCCAAGAAACCC  
CGCCATGGAGGCTTCATTCTGGACGAGGCTGATGTTGACGATGAGTATGAGGACGAGGACCAGTGGGAGG  
ATGGAGCAGAGGACATTCTAGAGAAAGAAGAGATTGAAGCCTCCAATATCGATAATGTTGTCCTGGATGA  
AGATCGTTCTGGGCTCGCCGCCTGCAAAACCTCTGGAGGGACCAGCGAGAAGAAGAACTGGGCGAGTAT  
TACATGAAGAAATACGCCAAGTCATCTGTGGGAGAGACGGTGTATGGAGGATCTGATGAGCTCTCAGACG  
ACATCACCCAGCAGCAGCTGCTCCCAGGAGTCAAGGATCCCAATCTGTGGACTGTCAAATGTAAGATTGG  
GGAGGAACGGGCCACGGCCATTTCTTGATGCGCAAGTTCATTGCCTACCAGTTCACAGACACGCCCCCTG  
CAGATCAAGTCAGTAGTGGCACCAGAGCATGTGAAGGGTACATCTACGTGGAGGCTACAAGCAGACCC  
ACGTGAAGCAGGCCATTGAGGGGGTGGGCAACCTGCGGCTTGGCTACTGGAACCAGCAGATGGTGCCCAT  
CAAGGAGATGACAGACGTGCTCAAAGTGGTGAAGGAGGTGGCCAACTGAAACCAAAGTCTGGTCCGC  
CTCAAGCGGGCATCTACAAGGATGACATTGCTCAGGTGGACTACGTGGAGCCAGCCAGAACACCATCT  
CCCTGAAGATGATCCCACGCATCGACTACGATCGCATCAAGGCCGCATGAGCTTGAAAGACTGGTTTGC  
CAAAAGGAAGAAGTTTAAGCGGCCCTCCACAGAGGCTGTTTGATGCTGAGAAGATCAGTCCCTGGGGGT  
GATGTTGCTCTGATGGTGACTTCTCATCTTTGAGGGGAACCGTTACAGCCGGAAGGGCTTTCTGTTCA  
AGAGCTTCGCCATGTCTGCTGTGATCACGGAGGGTGTGAAGCCAACACTCTCTGAGCTGGAAAAGTTTGA  
GGACCAGCCAGAGGGCATTGACCTGGAGGTGGTACTGAGAGCACAGGGAAGGAGCGGGAGCACAACTTC  
CAACCTGGGGACAACGTGGAGGTCTGTGAGGGTACTCATCAACCTGCAGGGCAAGATCCTCAGCGTGG  
ATGGCAACAAGATCACCATCATGCCAAGCATGAGGACCTCAAGGACATGTTGGAGTCCAGCCAGGA  
ACTTAGAAAATACTTCAAGATGGGGACCAGTGAAGGTGATTGCTGGCCGATTCGAGGGCGACACAGGC



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CTCATTGTGCGGGTGGAGGAGAATTTTCGTTATCCTGTTCTCTGACCTCACCATGCATGAGCTGAAGGTGC  
 TCCCCCGGACCTGCAGCTCTGCTCAGAGACAGCATCAGGTGTGGATGTTGGGGCCAGCATGAATGGGG  
 CGAGCTGGTGCAGCTGGATCCCCAGACTGTGGGTGTCATCGTGCAGTACGACCGGAGACCTTCCAGGTG  
 CTGAACATGTACGGGAAGGTGGTACTGTCAGACATCAGGCTGTGACCCGGAAGAAGGACAACCGCTTTG  
 CTGTGGCCTTGGACTCAGAGCAGAACAACATCCATGTGAAAGACATCGTTAAGGTCATTGATGGCCCCCA  
 CTCAGGCCGAGAAGGGGAGATTCGCCATCTCTCCGAAGCTTCGCTTCTACATTGCAAGAAACTGGTG  
 GAGAACGGGGGCATGTTTGTCTGCAAGACCCGCCACCTGGTGTGCTGGGGGCTCAAAGCCCGTGATG  
 TGACCAACTTCACCGTGGGTGGCTTTCGCCTATGAGTCCCGGATCAGCAGCCCATGCACCCAGTGC  
 TGGAGGTCAGCGTGGCGCTTGGTAGCCAGGTGGCGGAGTGGTGGCATGAGCAGGGGCCGGGGCCGG  
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 TGAAAGATGCCACAGAGTCCACGGCCCGTGTGGAGCTGCACTCCACCTGCCAGACCATCTCTGTGGACCG  
 TCAGCGGCTCACCACGGTGGGCTCAGCGGCCCGGGCGGCATGACCTCGACCTATGGGAGGACGCCCATG  
 TATGGCTCCCAGACGCCATGTATGGCTCTGGCTCCCGAACCCATGTACGGCTCACAGACACCCCTCC  
 AGGATGGTAGCCGACCCACACTACGGCTCACAGACGCCCTGCATGATGGCAGCCGACTCCTGCCCA  
 GAGTGGGGCCTGGGACCCCAACAACCCCAACACCGCTCACGGGTGAGGAAGAATAGATATGCTTTC  
 GATGATGAGCCACCCCTCCCCGAGGCTATGGGGAAACCCCAATCCCAAAACCTGGCTACCCAG  
 ACCCTCGTCCCACAGGTCAACCCACAATAACAACCCGACAGCGCAGGGACGCCGGCCATGTACAAAC  
 AGACCAGTTCTCTCCATGCTGCCCTCCCCACAAGTTTCTACCAGCCAGCCAGCCAGCCAGAGC  
 TACCACAGGTGGCGCAAGCCAGCAGGCTACCAAGATACCCACTCCCCAGCCAGCTACCACCTACAC  
 CGTCGCCCATGGCCTATCAGGCTAGCCCCAGCCGAGCCCGTGGCTACAGTCTATGACACCTGGAGC  
 TCCCTCCCCTGGTGGCTACAACCCACACACGCCAGGCTCAGGCATCGAGCAGAATCCAGCGACTGGTA  
 ACCACTGACATTCAGGTGAAGGTGCGGGACACCTACCTGGATACACAGGTGGTGGGACAGACAGGTCA  
 TCCGCAGTGTACGGGGGCATGTGCTCTGTACCTGAAGGACAGTGAAGGTTGTGAGCATTCCAG  
 TGAGCACCTGGAGCCTATACCCCAAGAACAAAGGTGAAAGTGATCCTGGGCGAGGATCGGGAA  
 GCCACGGGCTCCTACTGAGCATTGATGGTGGAGTGGCATTGTCCTGATGGACCTGATGAGCAGCTCA  
 AGATCCTCAACCTCCGCTTCTGGGAAGCTCCTGGAAGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG201196 representing NM\_003169  
 Red=Cloning site Green=Tags(s)

MSDSESNFSEEDSERSSDGEEAEVDEERRSAAGSEKEEPEDEEEEEEEYDEEEEEEDDRPPKPK  
 RHGGFILDADVDEYEDEDQWEDGAEDILEKEEIEASNIDNVVLEDRSGARRLQNLWRDQREELGEY  
 YMKKYAKSSVGETVYGGSDLESDDITQQQLPGVKPNLWTVKCKIGEERATAISLMRKFIA YQFTDTP  
 QIKSVVAPEHVKGYYIYEA YKQTHVKQAIIEGVGNLRLGYWNQMVPIKEMTDVLKVVKEVANLKP  
 SWVR LKRG IYKDDIAQVDYVPSQNTISLKMIPRIDYDR IAKARMSLKDWF AKRKKFKRPPQRL  
 FDAEKIRSLGG DVASDGDFLIFEGNRYSRKGF LFKSFAMSAVITEGVKPTLSELEKFEDQPEGID  
 LEVVTESTGKEREHNF QPGDNVEVCEGELINLQKILSVDGNKITIMPKHEDLKDMLFPAQELRKY  
 FKMGDHVKVIAGRFE GDTGLI VRVEENFVILFSDLTMHELKVLPRDLQLCSETASGVDVGGQHEW  
 GELVQLDPQTVGVIVRLERETFQV LNMYGKVVTVRHQAVTRKKNRFAVALDSEQNNIHVKDI  
 VKVIDGPHSGREGEIRHLFRSFAFLHCKKLV ENGGMFVCKTRHLVLAGGSKPRDVTNFTVGG  
 FAPMSPRISPMHPSAGGQRGGFGSPGGGSGMRSRGR RDNELIGQTVRISQGPYKGYIGVVK  
 DATESTARVELHSTCQTI SVDRQLTTVGSRRPGGMTSTYGRTPM YGSQTPMYGSGSRTP  
 MYGSQTPLDGSRTPHYGSQTPLDGSRTPAQSGAWDPNNPNTPSRAEEYEF DDEPTSPQAYG  
 GTPNPQTPGYPDPSSPQVNPQYNPQTPGTPAMYNTDQFSPYAAPSPQGSYQPSPPQS YHQV  
 AYPAGYQNTSPASYHPTSPMAYQASPSPVGYSPMTPGAPSPGGYNPHTPGSGIEQNSSDWV  
 TTDIQVKVRD TYLDTQVVGQTGVIRSVTGGMCSVYLK DSEKVVVISSEHLEPITPTKNNKVKV  
 ILGEDRE ATGVLLSIDGEDGIVRMDLDEQLKILNLRFLGKLL EA

TRTRPLE - GFP Tag - V

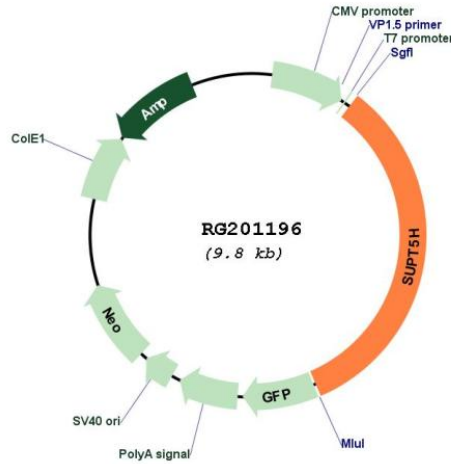
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_003169

ORF Size: 3261 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_003169.2</a></u> , <u><a href="#">NP_003160.2</a></u>
<b>RefSeq Size:</b>	3762 bp
<b>RefSeq ORF:</b>	3264 bp
<b>Locus ID:</b>	6829
<b>UniProt ID:</b>	<u><a href="#">O00267</a></u>
<b>Cytogenetics:</b>	19q13.2
<b>Domains:</b>	Supt5, KOW, NGN, KOW
<b>Protein Families:</b>	Transcription Factors
<b>Gene Summary:</b>	<p>Component of the DRB sensitivity-inducing factor complex (DSIF complex), which regulates mRNA processing and transcription elongation by RNA polymerase II. DSIF positively regulates mRNA capping by stimulating the mRNA guanylyltransferase activity of RNGTT/CAP1A. DSIF also acts cooperatively with the negative elongation factor complex (NELF complex) to enhance transcriptional pausing at sites proximal to the promoter. Transcriptional pausing may facilitate the assembly of an elongation competent RNA polymerase II complex. DSIF and NELF promote pausing by inhibition of the transcription elongation factor TFIIIS/S-II. TFIIIS/S-II binds to RNA polymerase II at transcription pause sites and stimulates the weak intrinsic nuclease activity of the enzyme. Cleavage of blocked transcripts by RNA polymerase II promotes the resumption of transcription from the new 3' terminus and may allow repeated attempts at transcription through natural pause sites. DSIF can also positively regulate transcriptional elongation and is required for the efficient activation of transcriptional elongation by the HIV-1 nuclear transcriptional activator, Tat. DSIF acts to suppress transcriptional pausing in transcripts derived from the HIV-1 LTR and blocks premature release of HIV-1 transcripts at terminator sequences.[UniProtKB/Swiss-Prot Function]</p>