

Product datasheet for **RG226321**

SUPT5H (NM_001111020) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SUPT5H (NM_001111020) 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:	>RG226321 representing NM_001111020 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGGACAGCGAGGACAGCACTTTCCGAGGAGGAGGACAGCGAGCGCAGCAGTGACGGCGAGGAGG
CCGAGGTAGACGAAGAGCGGGGAGTGCAGCGGGCAGTGAGAAAGAAGAAGAGCCTGAGGACGAAGAGGA
GGAGGAAGAGGAGGAGGAATACGATGAGGAAGAGGAGGAAGAAGATGATGACCGACCCCAAGAAACCC
CGCCATGGAGGCTTCATTCTGGACGAGGCTGATGTTGACGATGAGTATGAGGACGAGGACCAGTGGGAGG
ATGGAGCAGAGGACATTCTAGAGAAAGAAGAGATTGAAGCCTCCAATATCGATAATGTTGTCCTGGATGA
AGATCGTTCTGGGCTCGCCGCCTGCAAAACCTCTGGAGGGACCAGCGAGAAGAAGAACTGGGCGAGTAT
TACATGAAGAAATACGCCAAGTCATCTGTGGGAGAGACGGTGTATGGAGGATCTGATGAGCTCTCAGACG
ACATCACCCAGCAGCAGCTGCTCCCAGGAGTCAAGGATCCCAATCTGTGGACTGTCAAATGTAAGATTGG
GGAGGAACGGGCCACGGCCATTTCTTGATGCGCAAGTTCATTGCCTACCAGTTCACAGACACGCCCCCTG
CAGATCAAGTCAGTAGTGGCACCAGAGCATGTGAAGGGTACATCTACGTGGAGGCTACAAGCAGACCC
ACGTGAAGCAGGCCATTGAGGGGGTGGCAACCTGCGGCTTGGCTACTGGAACCAGCAGATGGTGCCCAT
CAAGGAGATGACAGACGTGCTCAAAGTGGTGAAGGAGGTGGCCAACTGAAACCAAGTCTGGTCCGC
CTCAAGCGGGCATCTACAAGGATGACATTGCTCAGGTGACTACGTGGAGCCAGCCAGAACACCATCT
CCCTGAAGATGATCCCACGCATCGACTACGATCGCATCAAGGCCGCATGAGCTTGAAAGACTGGTTTGC
CAAAAGGAAGAAGTTAAGCGGCCCTCCACAGAGGCTGTTTGTGATGCTGAGAAGATCAGTCCCTGGGGGT
GATGTTGCTCTGATGGTGACTTCTCATCTTTGAGGGGAACCGTTACAGCCGGAAGGGCTTTCTGTTCA
AGAGCTTCGCCATGTCTGCTGTGATCACGGAGGGTGTGAAGCCAACACTCTCTGAGCTGGAAAAGTTTGA
GGACCAGCCAGAGGGCATTGACCTGGAGGTGGTACTGAGAGCACAGGGAAGGAGCGGGAGCACAACCTC
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ATGGCAACAAGATCACCATCATGCCAAGCATGAGGACCTCAAGGACATGTTGGAGTCCAGCCAGGA
ACTTAGAAAATACTTCAAGATGGGGACCAGTGAAGGTGATTGCTGCCGATTCGAGGGCGACACAGGC



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CTCATTGTGCGGGTGGAGGAGAATTTTCGTTATCCTGTTCTCTGACCTCACCATGCATGAGCTGAAGGTGC
 TCCCCCGGACCTGCAGCTCTGCTCAGAGACAGCATCAGGTGTGGATGTTGGGGCCAGCATGAATGGG
 CGAGCTGGTGCAGCTGGATCCCCAGACTGTGGGTGTCATCGTGCAGTACGACCGGAGACCTTCCAGGTG
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 AGGATGGTAGCCGACCCACACTACGGCTCACAGACGCCCTGCATGATGGCAGCCGACTCCTGCCCA
 GAGTGGGGCCTGGGACCCCAACAACCCCAACACCGCTCACGGGTGAGGAAGAATAGATATGCTTTC
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 AGACCAGTTCTCTCCATGCTGCCCTCCCCACAAGTTTCTACCAGCCAGCCAGCCAGCCAGAGC
 TACCACAGGTGGCGCAAGCCAGCAGGCTACCAAGATACCCACTCCAGCCAGCTACCACCTACAC
 CGTCGCCCATGGCTATCAGGCTAGCCCGAGCCCGAGCCCGTGGCTACAGTCTATGACACCTGGAGC
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 TGAGCACCTGGAGCCTATCACCCCAACAAGAACAACAAGGTGAAAGTGATCCTGGCGAGGATCGGGAA
 GCCACGGGCTCCTACTGAGCATTGATGGTGGAGTGGCATTGTCCTGATGGACCTGATGAGCAGCTCA
 AGATCCTCAACCTCCGCTTCTGGGAAGCTCCTGGAAGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG226321 representing NM_001111020
 Red=Cloning site Green=Tags(s)

MSDSESNFSEEDSERSSDGEEAEVDEERRSAAGSEKEEEEEPEDEEEEEEEYDEEEEEEDDRPPKPK
 RHGGFILDADVDEYEDQWEDGAEDILEKEEIEASNIDNVVLEDRSGARRLQNLWRDQREELGEY
 YMKKYAKSSVGETVYGGSDLESDDITQQQLPGVKPNLWTVKCKIGEERATAISLMRKF IAYQFTDTP
 QIKSVVAPEHVGYIYVEAYKQTHVKQAIIEGVGNLRLGYWNQMVPIKEMTDVLKVVKEVANLKP
 SWRLKRG IYKDDIAQVDYVPSQNTISLKMIPRIDYDRIKARMSLKDWF AKRKKFKRPPQRL
 FDAEKIRSLGGDVASDGDFLIFEGNRYSRKGF LFKSFAMSAVITEGVKPTLSELEKFEDQPEGID
 LEVVTESTGKEREHNFQPGDNVEVCEGELINLQKILSVDGNKITIMPKHEDLKDMLFPAQELRKY
 FKMGDHVKVIAGRFE GDTGLIVRVEENFVILFSDLTMHELKVLPRDLQLCSETASGVDVGGQHEW
 GELVQLDPQTVGVIVRLERETFQV LNMYGKVVTVRHQAVTRKKNRFAVALDSEQNNIHVKDI
 VKVIDGPHSGREGEIRHLFRSFAFLHCKKLV ENGGMFVCKTRHLVLAGGSKPRDVTNFTVGG
 FAPMSPRISSPMHP SAGGQRGGFGSPGGSGGMSRGRGRDNELIGQTVRISQGPYKGYIGV
 VKDATESTARVELHSTCQTI SVDRQLTTVGSRRPGGMTSTYGRTPM YGSQTPMYGSGSRTP
 MYGSQTP LQDGSRTPHYGSQTP LHDGSRTPAQSGAWDPNNPNTPSRAEEEEYEFADDEPT
 PSPQAYGGTPNPQTPGYPDPSSPQVNPQYNPQTPGTPAMYNTDQFSPYAAPSPQGSYQPS
 PQSYHQVAPSPAGYQNT HSPASYHPTSPMAYQASPSPVGYSPMTPGAPSPGGYNPHTPGSGIE
 QNSSDWVTTDIQVKVRD TYLDTQVVGQTGVIRSVTGMCSVYLK DSEKVVVISSEHLEPITPT
 KNNKVKVILGEDRE ATGVLLSIDGEDGIVRMDLDEQLKILNLRFLGKLL EA

TRTRPLE - GFP Tag - V

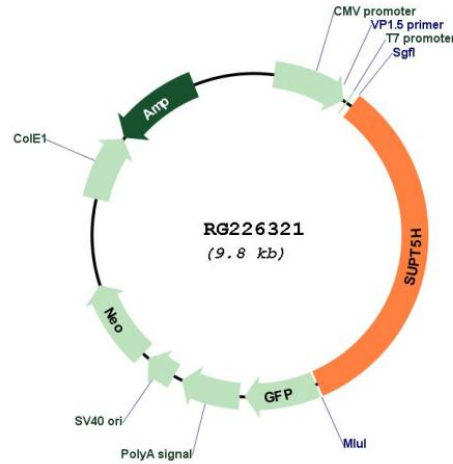
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001111020

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.

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:	<ol style="list-style-type: none">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:	<u>NM_001111020.3</u>
RefSeq Size:	3734 bp
RefSeq ORF:	3264 bp
Locus ID:	6829
UniProt ID:	<u>O00267</u>
Cytogenetics:	19q13.2
Protein Families:	Transcription Factors
Gene Summary:	<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>