

## Product datasheet for RC226321

### SUPT5H (NM\_001111020) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SUPT5H (NM\_001111020) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** SUPT5H  
**Synonyms:** SPT5; SPT5H; Tat-CT1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC226321 representing NM\_001111020  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGGACAGCGAGGACAGCAACTTTCCGAGGAGGAGGACAGCGAGCGCAGCAGTGACGGCGAGGAGG  
CCGAGGTAGACGAAGAGCGGGGAGTGCAGCGGGCAGTGAGAAAGAAGAAGAGCCTGAGGACGAAGAGGA  
GGAGGAAGAGGAGGAGGAATATGATGAGGAAGAGGAAGAAGAAGATGATGACCGACCCCCAAGAAACCC  
CGCCATGGAGGCTTCATTCTGGACGAGGCTGATGTTGACGATGAGTATGAGGACGAGGACCAGTGGGAGG  
ATGGAGCAGAGGACATTCTAGAGAAAGAAGAGATTGAAGCCTCCAATATCGATAATGTTGTCCTGGATGA  
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GGAGGAACGGGCCACGGCCATTTCTTGATGCGCAAGTTCATTGCCTACCAGTTCACAGACACGCCCCCTG  
CAGATCAAGTCAGTAGTGGCACCAGAGCATGTGAAGGGTACATCTACGTGGAGGCTACAAGCAGACCC  
ACGTGAAGCAGGCCATTGAGGGGGTGGGCAACCTGCGGCTTGGCTACTGGAACCAGCAGATGGTGCCCAT  
CAAGGAGATGACAGACGTGCTCAAAGTGGTGAAGGAGGTGGCCAACTGAAACCAAAGTCTGGTCCGC  
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CAAAAGGAAGAAGTTAAGCGGCCCTCCACAGAGGCTGTTTGTGATGCTGAGAAGATCAGTCCCTGGGGGT  
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ACTTAGAAAATACTTCAAGATGGGGACCAGTGAAGGTGATTGCTGCCGATTCGAGGGCGACACAGGC



CTCATTGTGCGGGTGGAGGAGAATTTTCGTTATCCTGTTCTCTGACCTCACCATGCATGAGCTGAAGGTGC  
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 CGAGCTGGTGCAGCTGGATCCCCAGACTGTGGGTGTCATCGTGCGACTAGAACGGGAGACCTTCCAGGTG  
 CTGAACATGTACGGGAAGGTGGTACTGTCAGACATCAGGCTGTGACCCGGAAGAAGGACAACCGCTTTG  
 CTGTGGCCTTGGACTCAGAGCAGAACAACATCCATGTAAAGACATCGTTAAGGTCATTGATGGCCCCCA  
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 TAAAAGATGCCACAGAGTCCACGGCCCGTGTGGAGCTGCACTCCACCTGCCAGACCATCTCTGTGGACCG  
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 ACCCTCGTCCCACAGGTCAACCCACAATAACAACCCGACAGCGCAGGGACGCCGGCCATGTACACAC  
 AGACCAGTTCTCTCCATGCTGCCCTCCCCACAAGTTTCTACCAGCCAGCCAGCCAGCCAGAGC  
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 CGTCGCCCATGGCTATCAGGCTAGCCCGAGCCGAGCCCGTTGGCTACAGTCTATGACACCTGGAGC  
 TCCCTCCCCTGGTGGCTACAACCCACACACGCCAGGCTCAGGCATCGAGCAGAATCCAGCGACTGGTA  
 ACCACTGACATTCAGGTGAAGGTGCGGGACACCTACCTGGATACACAGGTGGTGGGACAGACAGGTGCA  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC226321 representing NM\_001111020  
 Red=Cloning site Green=Tags(s)

MSDSEDSNFSEEDSERSSDGEEAEVDEERRSAAGSEKEEPEDEEEEEEEYDEEEEEEDDRPPKPK  
 RHGGFILDADVDEYEDQWEDGAEDILEKEEIEASNIDNVVLEDRSGARRLQNLWRDQREELGEY  
 YMKKYAKSSVGETVYGGSDDELSDITQQQLPGVKDNLWTVKCKIGEERATAISLMRKF IAYQFTDPL  
 QIKSVVAPEHVKGYYVEAYKQTHVKQAIIEGVGNLRLGYWNQMVPIKEMTDVLKVVKEVANLKPWSWR  
 LKRGYIKDDIAQVDYVPSQNTISLKMIPRIDYDRIKARMSLKDWF AKRKKFKRPPQRLFDAEKIRSLGG  
 DVASDGDFLIFEGNRYSRKGF LFKSFAMSAVITEGVKPTLSELEKFEDQPEGIDLEVVTESTGKEREHNF  
 QPGDNVEVCEGELINLQKILSVDGNKITIMPKHEDLKDMLFPAQELRKYFKMGDHWKVIAGRFEQDTG  
 L.IVRVEENFVILFSDLTMHELKVLPRDLQ.CSETASGVDVGGQHEWGELVQLDPQTVGVIVRLERETFQV  
 LNMYGKVVTVRHQAVTRKKDNRF AVALDSEQNNIHVKD.IVKVIDGPHSGREGEIRHLFRSFAFLHCKKL  
 ENGGMFVCKTRHLVLAGGSKPRDVTNFVGGFAPMSPRISSPMHPSAGGQRGGFGSPGGSGGMSRGRGR  
 RDNELIGQTVRISQGPYKGYIGVVKDATESTARVELHSTCQTI.SVDRQLTTVGSRRPGGMTSTYGRTPM  
 YGSQTPMYGSGSRTPMYGSQTP.LQDGSRTPHYGSQTP.LHDGSRTPAQSGAWDPNNPNTPSRAEEEYEF  
 DDEPTSPQAYGGTPNPQTPGYDPSPSPQVNPQYNPQTPGTPAMYNTDQFSPYAAPSPQGSYQSPSPQS  
 YHQVAPSPAGYQNTSHSPASYHPTSPMAYQASPSVPGYSPMTPGAPSPGGYNPHTPGSGIEQNSSDWV  
 TTDIQVKVRDYLDTQVVGQTVGIRSVTGMCSVYLDSEKVVVISSEHLEPITPTKNNKVKVILGEDRE  
 ATGVLLSIDGEDGIVRMDLDEQLKILNLRFLGKLLA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**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:**
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\\_001111020.3](#)

**RefSeq ORF:** 3264 bp

**Locus ID:** 6829

**UniProt ID:** [O00267](#)

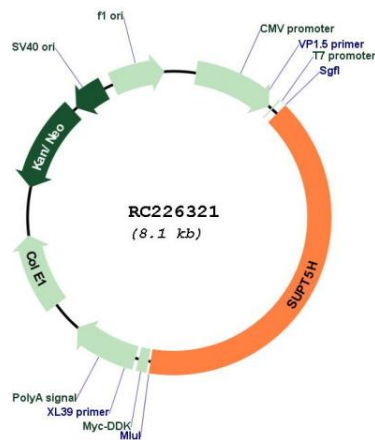
**Cytogenetics:** 19q13.2

**Protein Families:** Transcription Factors

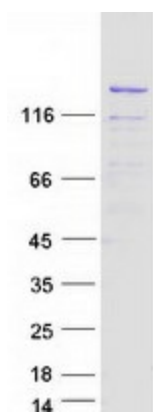
**MW:** 120.8 kDa

**Gene Summary:** 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]

**Product images:**



Circular map for RC226321



Coomassie blue staining of purified SUPT5H protein (Cat# [TP326321]). The protein was produced from HEK293T cells transfected with SUPT5H cDNA clone (Cat# RC226321) using MegaTran 2.0 (Cat# [TT210002]).