

## Product datasheet for **RC214566**

### SETD3 (NM\_032233) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SETD3 (NM_032233) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SETD3
Synonyms:	C14orf154; hSETD3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC214566 representing NM\_032233  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGGTAAGAAGAGTCGAGTAAAACTCAGAAATCTGGCACTGGTGTACAGCAACTGTGTACCAAAGG  
 AAATCTTGAACCTGACCAGTGAGCTGCTGCAGAAATGCAGCAGTCCGGCGCTGGCCAGGAAAAGAGTG  
 GGAAGAGTATGTGCAGATCCGGACTCTGGTTGAGAAAATACGAAAAAGCAAAAAGGTCTGTCCGTTACT  
 TTTGATGGAAAAAGAGAAGATTCTTCTGATCTAATGAAATGGGCCTCTGAAAATGGGCTTCTGTCTG  
 AGGGTTTTGAAATGGTTAACTTCAAAGAAGAGGGCTTTGGTTTGGAGCAACAAGAGATATCAAGGCAGA  
 AGAATTGTTTTTATGGTTCACGAAAATTGCTAATGACTGTTGAATCTGCTAAAAATTCAGTGTGGGG  
 CCCTTATATTCTAAGACCGAATCCTTCAAGCCATGGGAAACATCGCACTGGCCTTTCATTTGCTGTGTG  
 AGCGAGCCAGCCCTAATCCTTCTGGCAGCCCTATATTCAAACCTCCCCAGTGAATATGACACTCTCT  
 CTACTTTGAAGAAGATGAAGTTCGGTATCTTCAGTCCACACAAGCTATACATGATGTCTTCAGCCAGTAT  
 AAAACACAGCTCGACAGTACGCCACTTCTATAAAGTCATCCAGACCCATCCTCATGCCAACAACTAC  
 CCTTGAAGGATCTTTCACTTACGAGGACTACAGGTGGGCAGTCTCTTCTGTTATGACGAGGCAAAACCA  
 AATTTCCACAGAGGATGGTTCCCGCTGACCCTGGCTCTGATTCTTTATGGGATATGTGAACACACC  
 AACGGCTGATCACTACTGGTTACAACCTGGAAGATGACCCTGTGAGTGTGGCTCTGCAGGATTTTC  
 GGGCTGGAGAGCAGATTTACATTTTTATGGCACTCGATCCAACGCAGAGTTTGTGATCCACAGTGGTTT  
 TTTCTTTGACAATAACTCACACGACAGAGTAAAAAAGCTTGGAGTGAAGTAAAGTGCAGACTCTAC  
 GCCATGAAGGCCGAGGTCTTGGCTCGTCCCGCATCCCCACTCCAGTGTTTTGCATTGCATTTACCG  
 AGCCGCCATCTCTGCTCAGCTTTTGGCTTTTCTCCGAGTATTCTGTATGACTGAAGAAGAAGTAAAGA  
 ACACCTTGGTGGGAGACGCGCTATTGATAGAATCTTACCTTGGGAACTCGGAATTTCTGTTAGCTGG  
 GACAACGAGGTCAAACCTTGGACATTTCTGAAGATAGAGCCTCACTTCTTTAAAAACATATAAAACAA  
 CTATTGAGGAAGATAAATCCGTCTTAAAAACCACGATCTTCTGTTCTGTCGAAAAATGGCCATCAAATT  
 GCGCTTAGGTGAGAAAGAGATTTTGGAAAAAGCAGTAAAGAGTGCAGCTGTCAACCGGGAATACTATCGC  
 CAACAGATGGAGGAAAAGGCTCCGCTTCCCAAATATGAAGAGAGTAACTTGGGCTGTTGGAGAGCAGCG  
 TGGGGGACTCGAGGCTCCCCTGGTCTTGAGAAACCTCGAGGAGGAGGCTGGAGTGCAGGATGCCTTGAA  
 CATCAGAGAGGCAATCAGCAAAGCAAAGGCCACAGAAAAACGGGCTTGAAACGGTAAAACTCTATCCCT  
 AATGGGACCAGGTCCGAAAATGAAAGTCTCAATCAAGAAAGTAAAGAGCAGTTGAAGACGCCAAAGGAT  
 CTTCTTACAGACGACTGCTGGAGTTAAGGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC214566 representing NM\_032233  
 Red=Cloning site Green=Tags(s)

MGKSRVKTQKSGTGATATVSPKEILNLTSELLQKSSPAPGPGKEWEEYVQIRTLVEKIRKKQKGLSVT  
 FDGKREDFPDLMKWASENGASVEGFEMVNFKEEGFLRATRDIKAEELFLWVPRKLLMTVESAKNSVLG  
 PLYSQDRILQAMGNIALAFHLLCERASPNFWQPYIQLPSEYDTPLYFEDEVRYLQSTQAIHDFVSQY  
 KNTARQYAYFYKVIQTHPHANKLPLKDSFTYEDYRWAVSSVMTRQNQIPTEDGSRVTLAL IPLWDMCNHT  
 NGLITTYNLEDDRCECVLQDFRAGEQIYIFYGTRSNAEFVIHSGFFDNNSHDRVKIKLGVSKSDRLY  
 AMKAEVLARAGIPTSSVFALHFTEPPISAQLLAFLRVFCMTEELKEHLLGDSAIDRIFTLGNSEFPVSW  
 DNEVKLWTFLEDRASLLKTYKTTIEEDKSVLKNHDL SVRAKMAIKLRLGEKEILEKAVKSAAVNREYYR  
 QQMEEKAPLPKYEESNLGLLESSVGSRLPLVLRNLEEEAGVQDALNIREAISKAKATENGLVNGENSIP  
 NGTRSENEESLNQESKRAVEDAKGSSSDSTAGVKE

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6593\\_c10.zip](https://cdn.origene.com/chromatograms/mk6593_c10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_032233

**ORF Size:** 1782 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_032233.3](#)

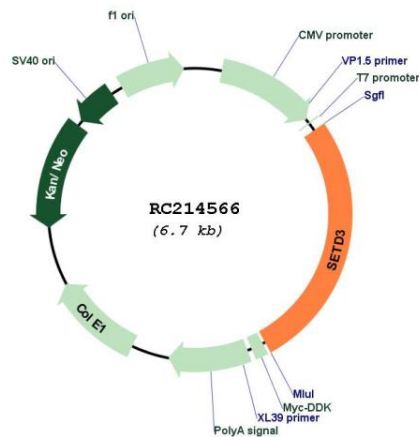
**RefSeq Size:** 2905 bp

**RefSeq ORF:** 1785 bp

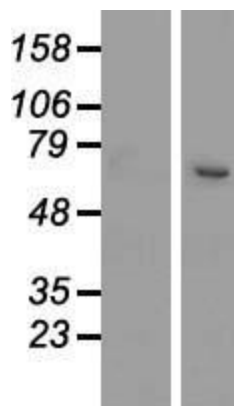
**Locus ID:** 84193  
**UniProt ID:** [Q86TU7](#)  
**Cytogenetics:** 14q32.2  
**Domains:** SET  
**MW:** 67.1 kDa

**Gene Summary:** Protein-histidine N-methyltransferase that specifically mediates methylation of actin at 'His-73' (PubMed:30526847, PubMed:30626964, PubMed:30785395). Histidine methylation of actin is required for smooth muscle contraction of the laboring uterus during delivery (PubMed:30626964). Does not have protein-lysine N-methyltransferase activity and probably only catalyzes histidine methylation of actin (PubMed:30626964, PubMed:30785395). [UniProtKB/Swiss-Prot Function]

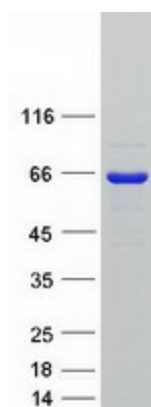
### Product images:



Circular map for RC214566



Western blot validation of overexpression lysate (Cat# [LY410259]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214566 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SETD3 protein (Cat# [TP314566]). The protein was produced from HEK293T cells transfected with SETD3 cDNA clone (Cat# RC214566) using MegaTran 2.0 (Cat# [TT210002]).