

## Product datasheet for **RR203618**

### Set (NM\_001012504) Rat Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Set (NM\_001012504) Rat Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: Set  
 Synonyms: Ab1-115  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 ORF Nucleotide Sequence: >RR203618 representing NM\_001012504  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCCCGAAGCGGCAATCTGCGATCCTGCCTCAGCCCAAGAAACCCAGACCCGTTGCTGCCCCGAAGC  
 TGGAGGACAAGTCGGCCTCTCCCGCCTGCCGAAGGGAGAAAAAGAACAGCAAGAAGCAATTGAACATAT  
 TGATGAAGTACAAAATGAAATAGACAGGCTTAATGAACAAGCCAGTGAGGAAATTTGAAAGTAGAACAA  
 AAATAAACAACCTCCGCCAACATTTTTTCAGAAGAGGTGAGAATTGATCACAAAATCCCAAATTTTT  
 GGGTAACAACATTTGTCAACCATCCACAAGTGTCTGCACTGCTTGGGGAGGAAGACGAGGAGGCCCTGCA  
 CTATTTGACCAGAGTTGAAGTGACAGAATTTGAAGACATTAATCAGTTACAGAATAGATTTTTATTTT  
 GATGAAAATCCTTACTTTGAAAATAAAGTTCTCTCCAAAGAATTTTCATCTGAATGAGAGCGGTGACCCAT  
 CTTCAAAGTCCACCGAAATCAAATGAAAATCTGGAAAGGATTTGACAAAATGCTCAAAGTCAAACGAGAA  
 TAAGGCCAGCAGGAAGAGGCAGCACGAAGAGCCAGAGAGCTTCTTTACCTGGTTTACTGACCATTGACAG  
 GCAGGTGCTGACGAGTTAGGAGAGGTGATCAAAGATGATATTTGGCCAAATCCTTTGCACTACTATTTGG  
 TTCCCATATGGATGATGAAGAAGGAGAGGCAGAGGATGATGATGACGACGATGAAGAGGAGGAAGGTT  
 GGAAGACATTGATGAAGAAGGAGACGAGGACGAAGGTGAAGAAGACAATGATGAGGATGAAGGGGAGGAA  
 GGAGAGGAGGATGAAGGCCGAGGATGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >RR203618 representing NM\_001012504  
 Red=Cloning site Green=Tags(s)

MAPKRQSAILPQPKKPRVAAPKLEDKSASPGLPKGEKEQQEAIIEHIDEVQNEIDRLNEQASEEILKVEQ  
 KYNKLRQPFQKRSELI TKIPNFVWTTFNHPQVSALLGEEDEEALHYL TRVEVTEFEDIKSGYRIDFYF  
 DENPYFENKVL SKEFHLNESGDPSSKSTEIKWKSGLTKCSSQTQNKASRKRQHEEPESFFTFWTDHSD  
 AGADELGEVIKDDIWPNPLQYYLVPDMDEEAGEAEDDDDDDEEEGLEIDEEGDEDEGEEDNDEDEGEE  
 GEEDEGEDD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001012504

**ORF Size:** 867 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\\_001012504.1](#), [NP\\_001012522.1](#)

**RefSeq Size:** 1519 bp

**RefSeq ORF:** 870 bp

**Locus ID:** 307947

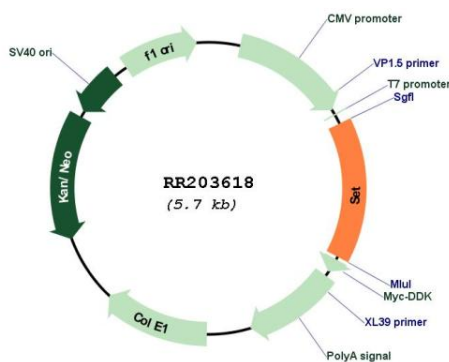
**UniProt ID:** [Q63945](#)

**Cytogenetics:** 19q12

**MW:** 33.4 kDa

**Gene Summary:** Multitasking protein, involved in apoptosis, transcription, nucleosome assembly and histone chaperoning. Isoform 2 anti-apoptotic activity is mediated by inhibition of the GZMA-activated DNase, NME1. In the course of cytotoxic T-lymphocyte (CTL)-induced apoptosis, GZMA cleaves SET, disrupting its binding to NME1 and releasing NME1 inhibition. Isoform 1 and isoform 2 are potent inhibitors of protein phosphatase 2A. Isoform 1 and isoform 2 inhibit EP300/CREBBP and PCAF-mediated acetylation of histones (HAT) and nucleosomes, most probably by masking the accessibility of lysines of histones to the acetylases. The predominant target for inhibition is histone H4. HAT inhibition leads to silencing of HAT-dependent transcription and prevents active demethylation of DNA. Both isoforms stimulate DNA replication of the adenovirus genome complexed with viral core proteins; however, isoform 2 specific activity is higher (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RR203618