

## Product datasheet for **RC203028**

### **MON1A (NM\_032355) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MON1A (NM_032355) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MON1A
Synonyms:	SAND1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC203028 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTACTGACATGCAGAGGAAGAGAAGCAGCGAATGCCTTGATGGCACATTGACTCCTTCTGATGGAC  
 AGAGTATGGAGAGAGCTGAGAGCCCCACACCAGGAATGGCCAGGGAATGGAGCCAGGTGCGGGCCAGGA  
 GGGTGCCATGTTCTGTCATGCCCGTTCTACGAGGACCTGACTGAGTCAGAGGATGGGGCAGCTTCTGGG  
 GACAGCCACAAGGAGGGTACCAGGGTCCCCCGCGCTGCCTACAGACATGCGCCAGATCAGCCAGGACT  
 TTAGCGAGCTAAGCACCCAGCTGACGGGTGGGCCGGGACCTGCAGGAGGAGATGCTGCCAGGAAGCTC  
 TGAGGATTGGCTGGAACCCAGGGCAGTTGGCGACCAGCCACAGAGCCCCCAGGGAGGGCACAACC  
 GAGGGGGATGAGGAGGATGCCACGGAGGCATGGCGCTGCACCAGAAGCATGTCTTTGTGCTGAGTGAGG  
 CAGGGAAGCCTGTGTACTCCCGCTATGGTCTGAGGAGGCACTTCCAGCACTATGGGTGTTATGGTGGC  
 CCTGGTGTCTTCTGGAGGCAGACAAGAACGCCATCCGCTCCATCCATGCAGATGGCTACAAGGTAGTA  
 TTCGTGCCCGGAGCCCGCTGGTGTAGTGGCGGTGGCTCGTACGCGGCAGTCGGCACAAGAGCTGGCGC  
 AGGAGCTGCTCTACATCTACTACAGATCCTAAGCCTTCTTACCGGTGCGCAGCTGAGCCACATCTTCCA  
 GCAGAAGCAGAATATGATTTGCGGCGCCTACTCTCGGGCTCAGAGCGCATCACCGACAACCTGCTGCAG  
 CTCATGGCAGCAGACCCAGCTTCTGATGGGGCGGCACGGTGCCTGCCCTGGCGGGCGGCTGCGCG  
 AACTGTGAGCGCCAGCCTGCAGCAGGCGCGTGCAGCAGCCTGGTCTTCTCCATCTGCTGGCCCGCAA  
 CCAGCTCGTGGCACTCGTGCAGGAAAGGACCAATTTCTGACCCCATCGACCTGCACCTGCTCTTCAAC  
 CTCATTAGTTCCTCTCGTCTTTCCGAGGGCGAGGCTGGACGCCCGTGTGCTGCCAAATTCACGC  
 CAGCCGGCTTCTCCACGCACACATCTTACCTAGAGCCTGACACTGACCTCTGCTGCTGCTTGTCTC  
 CACTGACCGTGAGGACTTCTTTGCACTCTGACTGCCGCGCGCTTCCAGGAGCGCCTTCGCAAGCGC  
 GGAGCCACCTGGCCCTGCGAGAGGCACTGCGCACACCCTACTACAGCGTTGCCAAGTGGGCATCCCTG  
 ACCTGCGTCACTTCTCTATAAGTCAAAGAGCTCGGGACTCTTACCAGCCCTGAGATTGAGGCCCCATA  
 CACCAGTGAAGAGGAGCAGGAGCGGCTGCTGGGCTCTACCAGTACTTGCACAGTCGTGCCACAATGCC  
 TCTCGCCACTCAAGACCATTTACTACAGGGCCCAACGAGAACCTCCTGGCTGGGTGACAGGCGCCT  
 TTGAGCTCTACATGTGTACAGCCCCCTGGGACCAAGGCGTCAGCCGTCAGTCCATCCATAAGCTGAT  
 GCGCTGGATCCGCAAAGAGGAAGACCGCCTTTCATTCTACGCCCTCACCTAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC203028 protein sequence  
 Red=Cloning site Green=Tags(s)

MATDMQRKRSSECLDGLTPSDGQSMERAESPTPGMAQGMPEPAGQEGAMFVHARSYEDLTESEDGAASG  
 DSHKEGTRGPPPLPTDMRQISQDFSELSTQLTGVARDLQEEMLPGSSEDWLEPPGAVGRPATEPPREGTT  
 EGDEEDATEAWRLHQKHVFLSEAGKPVYSRYGSEEALSSTMGMVALVSFLEADKNAIRSIHADGYKVV  
 FVRRSPLVLVAVARTRQSAQELAQELLYIYYQILSLLTGAQLSHIFQQKQNYDLRRLLSGSERITDNLQ  
 LMARDPSFLMGAARCLPLAAVRDVSASLQARARSLVFSILLARNQLVALVRRKQFLHPIDLHLLFN  
 LISSSSSFREGEAWTPVCLPKFNAAGFFHAHISYLEPDTDLCLLLVSTDREDFFAVSDCRRRFQERLRK  
 GAHLALREALRTPYYSAQVGIPLRHFLYKSKSSGLFTSPEIEAPYTSEEEQERLLGLYQYLHSAHNA  
 SRPLKTIYYTGNENLLAWVTGAFELYMCYSPLGKASAVSAIHKLMRWIRKEEDRLFILTPLTY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6231\\_b06.zip](https://cdn.origene.com/chromatograms/mk6231_b06.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_032355

**ORF Size:** 1665 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\\_032355.2](#), [NP\\_115731.1](#)

**RefSeq Size:** 2244 bp

**RefSeq ORF:** 1959 bp

**Locus ID:** 84315

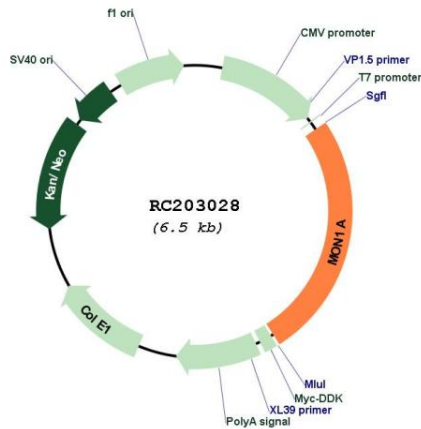
UniProt ID: [Q86VX9](#)

Cytogenetics: 3p21.31

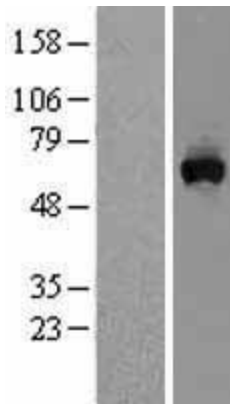
MW: 62.1 kDa

**Gene Summary:** Plays an important role in membrane trafficking through the secretory apparatus. Not involved in endocytic trafficking to lysosomes (By similarity). Acts in concert with CCZ1, as a guanine exchange factor (GEF) for RAB7, promotes the exchange of GDP to GTP, converting it from an inactive GDP-bound form into an active GTP-bound form (PubMed:23084991). [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RC203028



Western blot validation of overexpression lysate (Cat# [LY410192]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203028 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).