

## Product datasheet for **RC218451**

### MAP2 (NM\_031847) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MAP2 (NM_031847) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MAP2
Synonyms:	MAP-2; MAP2A; MAP2B; MAP2C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC218451 representing NM\_031847  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCAGATGAACGGAAAGATGAAGCAAAGGCACCTCACTGGACCTCAGCACCGCTAACAGAGGCATCTG  
 CACACTCACATCCACCTGAGATTAAGGATCAAGGCGGAGCAGGGGAAGGACTTGTCCGAAGCGCCAATGG  
 ATTCCCATACAGGGAGGATGAAGAGGGTGCCTTTGGAGAGCATGGGTACAGGGCACCTATTCAAATACC  
 AAAGAGAATGGGATCAACGGAGAGCTGACCTCAGCTGACAGAGAAACAGCAGAGGAGGTGTCTGCAAGGA  
 TAGTTCAAGTAGTCACTGCTGAGGCTGTAGCAGTCTGAAAGGTGAACAAGAGAAAGAAGCTCAACATAA  
 AGACCAGACTGCAGCTCTGCCTTAGCAGCTGAAGAAACAGCTAATCTGCCTCTTCTCCACCCCATCA  
 CCTGCCTCAGAACAGACTGTCACAGTGGAGGAAGCAGCAGGTGGGAATCAGCTCTGGCTCCCAGTGTAT  
 TTAACAGGCAAAGGACAAAGTCTCTGACGGAGTAACCAAGAGCCAGAAAAGCGCTCTTCTCTCCAAG  
 ACCTTCTCCATTCTCCCTCCTCGGCGAGGTGTGTGAGGACAGAGATGAGAATTCCTTCTCTCAAC  
 AGTTCTATCTCTTCTCAGCACGGCGACCACCAAGGTCAGAGCCAATTCGCAGAGCAGGGAAGAGTGGTA  
 CCTCAACACCCACTACCCCTGGGTCTACTGCCATCACTCCTGGCACCCCAAGTTATTCTTACGCAC  
 ACCAGGCACTCCTGGAACCCCTAGCTATCCCAGGACCCCTCACACACCAGGAACCCCAAGTCTGCCATC  
 TTGGTGCCGAGTGAGAAGAAGGTCGCCATCATACGTACTCCTCCAAAATCTCCTGCGACTCCAAGCAGC  
 TTCGGCTTATTAACCAACCACTGCCAGACCTGAAGAATGTCAAATCCAAAATCGGATCAACAGACAAAT  
 CAAATACCAGCCTAAAGGGGGCAGGTTAGGATTTTAAACAAGAAGATCGATTTTAGCAAAGTTCAGTCC  
 AGATGTGGTTCCAAGGATAACATCAAACATTCGGCTGGGGCGGAAATGTACAAAATGTTACCAAGAAAA  
 TAGCAATAAGCCATGTGACATCCAAATGTGGCTCTGAAGAACATCCGCCACAGGCCAGGTGGCGGAGC  
 TGTGAAAATTGAGAGTGTAAAACCTAGATTTCAAAGAAAAGGCCCAAGCTAAAGTTGGTTCTCTTGATAAT  
 GCTCATCATGTACCTGGAGGTGTAATGTCAAGATTGACAGCCAAAAGTTGAACTTCAGAGAGCATGCTA  
 AAGCCCGTGTGGACCATGGGCTGAGATCATTACACAGTCCCCAGGCAGATCCAGCGTGGCATCACCCCG  
 ACGACTCAGCAATGTCTCCTCGTCTGGAAGCATCAACCTGCTCGAATCTCCTCAGCTTGCCACTTTGGCT  
 GAGGATGCTACTGCTGACTCGCTAAGCAGGGCTTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC218451 representing NM\_031847  
 Red=Cloning site Green=Tags(s)

MADERKDEAKAPHWTSAPL TEASAHSHPPEIKDQGGAGEGLVRSANGFPYREDEEGAFGEHGSQGTYSNT  
 KENGINDELTSADRETAEEVSARIVQVVTAEAVAVLKGEQEKEAQHKDQTAALPLAAEETANLPPSPPPS  
 PASEQTVTVEEAAGGESALAPSVFKQAKDKVSDGVTKSPEKRSSLRPPSSILPPRRGVSGDRDENSFLN  
 SSISSARRTRRSEPIRRAGKSGTSTPTTPGSTAITPGTPPSYSSRTPGTPGTPSPRTPHTPGTPKSAI  
 LVPSEKKVAIIRTTPKSPATPKQLRLINQPLPDLKNVSKIGSTDNIKYQPKGGQVRILNKKIDFSKVQS  
 RCGSKDNIKHSAGGQNVQIVTKKIDL SHVTSKCGSLKNIRHRPGGGRVKIESVKLDFKEKAQAKVGLDN  
 AHHVPGGQNVKIDSQKLNFRHAKARVDHGAEIITQSPGRSSVASPRRLSNVSSSGSINLLESPQLATLA  
 EDVTAALAKQGL

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8063\\_h01.zip](https://cdn.origene.com/chromatograms/mk8063_h01.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_031847

**ORF Size:** 1506 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\\_031847.3](#)

**RefSeq Size:** 2559 bp

**RefSeq ORF:** 1509 bp

**Locus ID:** 4133

**UniProt ID:** [P11137](#)

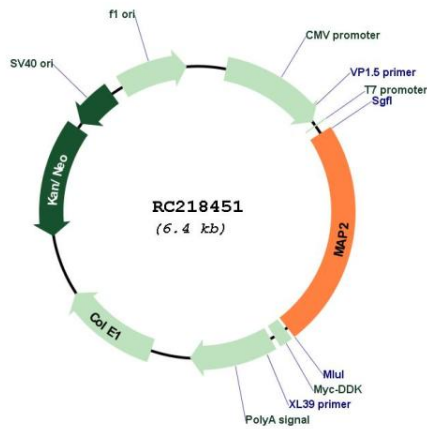
**Cytogenetics:** 2q34

**Protein Families:** Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS

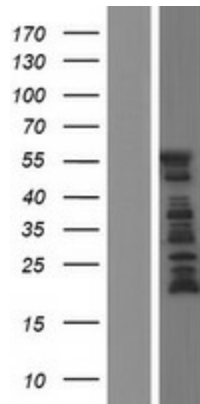
**MW:** 52.8 kDa

**Gene Summary:** This gene encodes a protein that belongs to the microtubule-associated protein family. The proteins of this family are thought to be involved in microtubule assembly, which is an essential step in neurogenesis. The products of similar genes in rat and mouse are neuron-specific cytoskeletal proteins that are enriched in dendrites, implicating a role in determining and stabilizing dendritic shape during neuron development. A number of alternatively spliced variants encoding distinct isoforms have been described. [provided by RefSeq, Jan 2010]

**Product images:**



Circular map for RC218451



Western blot validation of overexpression lysate (Cat# [LY410496]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218451 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).