

Product datasheet for **RC221637**

MAP2 (NM_031845) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAP2 (NM_031845) 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:

>RC221637 representing NM_031845
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCAGATGAACGGAAAGATGAAGCAAAGGCACCTCACTGGACCTCAGCACCGCTAACAGAGGCATCTG
 CACACTCACATCCACCTGAGATTAAGGATCAAGGCGGAGCAGGGGAAGGACTTGTCCGAAGCGCCAATGG
 ATTCCCATACAGGGAGGATGAAGAGGGTGCCTTTGGAGAGCATGGGTACAGGGCACCTATTCAAATACC
 AAAGAGAATGGGATCAACGGAGAGCTGACCTCAGCTGACAGAGAAAACAGCAGAGGAGGTGTCTGCAAGGA
 TAGTTCAAGTAGTCACTGCTGAGGCTGTAGCAGTCTGAAAGGTGAACAAGAGAAAAGAAGCTCAACATAA
 AGACCAGACTGCAGCTCTGCCTTAGCTGAAGAAAACAGCTAATCTGCCTCCTTCTCCACCCCATCACCT
 GCCTCAGAACAGACTGTCACAGTGGAGGAAGCAGCAGGTGGGGAATCAGCTCTGGCTCCCAGTGTATTTA
 AACAGGCAAAGGACAAAGTCTCTGACGGAGTAACCAAGAGCCCAGAAAAGCGCTTCTCTCCCAAGACC
 TTCTCCATTCTCCTCCTCGGCGAGGTGTGTCAGGAGACAGAGATGAGAATTCCTTCTCTCAACAGT
 TCTATCTTTCTCAGCAGCGCGGACCACCAGGTCAAGCAATTCGAGAGCAGGGAAGAGTGGTACCT
 CAACACCCACTACCCCTGGGTCTACTGCCATCACTCCTGGCACCCCAAGTATTCTTACGCACACC
 AGGCACTCCTGGAACCCCTAGCTATCCCAGGACCCTCACACACCAGGAACCCCAAGTCTGCCATCTTG
 GTGCCGAGTGAGAAGAAGGTCCGCATCATACGTACTCCTCAAAATCTCCTGCGACTCCCAAGCAGCTTC
 GGCTTATTAACCAACCACTGCCAGACCTGAAGAATGTCAAATCCAAAATCGGATCAACAGACAACATCAA
 ATACCAGCCTAAAGGGGGCAGGTACAAATTGTTACCAAGAAAATAGACCTAAGCCATGTGACATCCAAA
 TGTGGCTCTCTGAAGAACATCCGCCACAGGCCAGGTGGCGGACGTGTGAAAATTGAGAGTAAAACCTAG
 ATTTCAAAGAAAAGGCCAAGCTAAATTGGTTCTTTGATAATGCTCATCATGTACCTGGAGGTGGTAA
 TGTCAAGATTGACAGCCAAAAGTTGAACCTCAGAGAGCATGCTAAAGCCCGTGTGGACCATGGGGCTGAG
 ATCATTACACAGTCCCCAGGAGATCCAGCGTGGCATCACCCGACGACTCAGCAATGTCTCCTCGTCTG
 GAAGCATCAACCTGCTCGAATCTCCTCAGCTTGGCACTTTGGCTGAGGATGCTACTGCTGCACTCGCTAA
 GCAGGGCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221637 representing NM_031845
 Red=Cloning site Green=Tags(s)

MADERKDEAKAPHWTSAPL TEASAHSHPPEIKDQGGAGEGLVRSANGFPYREDEEGAFGEHGSQGTYSNT
 KENGINGELTSADRETAEEVSARIVQVVTAEAVAVLKGEQEKEAQHKDQTAALPLAEETANLPPSPPPPSP
 ASEQTVTVEEAAGGESALAPSVFKQAKDKVSDGVTKSPEKRSSLPRPSSILPPRRGVSGDRDENSFSLNS
 SSISSARRTRSEPIRRAGKSGTSTPTTPGSTAITPGTTPSYSSRTPGTPGTPSYPRTPHTPGTPKSAIL
 VPSEKKVAIIRTTPKSPATPKQLRLINQPLPDLKNVSKIGSTDNIKYQPKGGVQIVTKKIDLSHVTSK
 CGSLKNIRHRPGGGRVKIESVKLDFKEKAQAKVGLDHAHVPGGGNVKIDSQKLNFRHAKARVDHGAE
 IITQSPGRSSVASPRRLSNVSSSGSINLLESPQLATLAEDVTAALAKQGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6508_d10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_031845

ORF Size: 1410 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_031845.3](#)

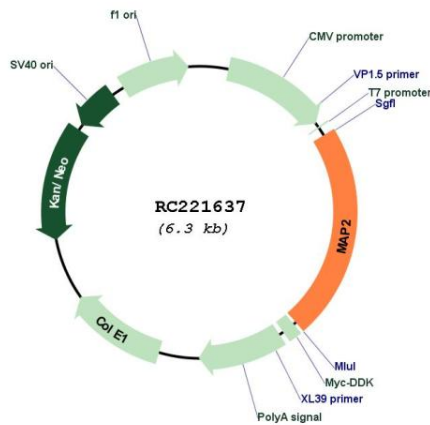
RefSeq Size: 2466 bp

RefSeq ORF: 1416 bp

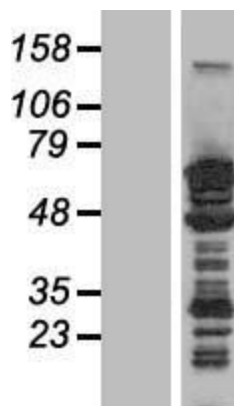
Locus ID: 4133

UniProt ID: [P11137](#)
Cytogenetics: 2q34
Domains: tubulin-binding
Protein Families: Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS
MW: 49.5 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]

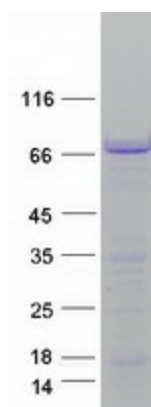
Product images:



Circular map for RC221637



Western blot validation of overexpression lysate (Cat# [LY410495]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221637 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAP2 protein (Cat# [TP321637]). The protein was produced from HEK293T cells transfected with MAP2 cDNA clone (Cat# RC221637) using MegaTran 2.0 (Cat# [TT210002]).