

Product datasheet for **MR230361**

Mapkap1 (NM_001290625) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mapkap1 (NM_001290625) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mapkap1
Synonyms:	A1591529; D230039K05Rik; Sin1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR230361 representing NM_001290625
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCTTCTTGGACAATCCAATCATCTAGCTCATATTCGACAGTCACACGTGACCAGTGATGACA
 CAGGAATGTGTGAGATGGTTCTCATTGATCATGACGTTGACCTAGAGAAGACTCATCCTCCGTCAGTGCC
 TGGAGACAGTGGGTGAGAAGTTCAGGGAAGCAGTGGTGAGACGCAGGGCTACATATACGCCCACTGTGT
 GATATTACATCGAGCTGGGACTTTGGTATTAGAAGACGCTCAAACACAGCTCAAAGATTAGAACGACTCC
 GCAAAGAGAGACAAAACAGATCAAATGCAAAAATATTCAGTGGAAAGAAAGAAATCTAAACAATCAGC
 CCAGGAGTTAAAGTCACTGTTTGAATAAATCCCTCAAAGAGAAGCCTCCAAGTTCAGGCAAGCAGTCC
 ATATTGTCTGTACGCCTGGAGCAGTGCCTCTGCAGCTGAATAACCCCTTAATGAGTACTCCAAGTTG
 ATGGCAAGGGTCACTGTGGTACAACGCAACTAAGAAGATCGACGCTACCTCCCCTGCACTCCAGCCA
 GGACAGACTGCTCCAATGACCGTGGTACCATGGCCAGCGCCAGGGTGCAGGACCTCATCGGGCTCATC
 TGTGGCAGTACACGAGTGAAGGACGGGAGCCGAAGCTCAATGACAATGTCAAGTGCCTACTGCCTGCATA
 TTGCTGAGGATGATGGGGAGGTCGACACGGATTTCCGCCACTGGATTCCAATGAGCCCATTCAAGTT
 TGGCTTCACTACTTTGGCCCTGGTTGAAAACTCCTCTCCTGGTCTGACCTCCAAAGAGTCGCTCTTT
 GTTCGAATAAATGCTGCTCATGGATTCTCCCTTATCCAAGTAGACAACACAAAGGTCACCATGAAGGAGA
 TCTTGCTCAAGGCAGTAAAAGAAGAAAGGATCCCAGAAAATTCAGGCCCTCAGTACCGCCTGGAGAA
 GCAGAGTGAGCCTAACATCGCTGTGGACCTGGAGAGCACGCTGGAGAGCCAGAACGCCTGGGAGTTCTGC
 CTGGTTCCGAGAACAGTTCAAGGGCAGACGGAGTTTTCGAGGAGGATTCACAAATTGACATCGCTACAG
 TACAGGATATGCTTAGCAGCCACATTACAAGTCATTCAAAGTCAGCATGCCACAGACTGCCATTAC
 GACGGATGTGCAGTTAGGTATCTCTGGAGACAAAGTAGAGATAGACCCTGTTACGAATCAGAAAGCCAGC
 ACTAAGTTTTGGATTAAGCAGAAACCCATCTCAATCGATTGTGACCTGCTCTGTGCTGTGACCTTGCCG
 AGGAGAAGAGCCCAGTCACGCGGTGTTAAGCTCACGTATCTAAGCAGCCATGACTACAAGCACCTGTA
 CTTGAGTCCGACGCAGCCACAGTCAGTGAGATCGTGCTCAAGGTTAACTACATCCTGGAATCACGAGCG
 AGCACTGCCCGAGCTGATTATCTTGCTCAAAAACAAAGAAAACCTGAACAGGCGAACAAAGCTTCAGCTCC
 AGAAGGAGAAGAAATCAGGGCAGCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230361 representing NM_001290625
 Red=Cloning site Green=Tags(s)

MAFLDNPTIILAHIRQSHVTSDDTGMCEMVLIDHDVDLEKTHPPSVPGDSGSEVQSSSETQGYIYAQSV
 DITSSWDFGIRRRSNTAQRLERLRKERQNIKCKNIQWKERNKQSAQELKSLFEKSLKEKPPSSGKQS
 ILSVRLEQCPLQLNPFNEYSKFDGKGVHGTATKKIDVYLPLHSSQDRLLPMTVVTMASARVQDLIGLI
 CWQYTSEGREPKNLNDNVSAYCLHIAEDDGEVDTDFPPLDSNEPIHKFGFSTLALVEKYSSPLTSKESLF
 VRINAHGFSLIQVDNTKVTMKEILLKAVKRRKGSQKISGPQYRLEKQSEPNIQVLESTLESQNAWEFC
 LVRENSRADGVFEEDSQIDIATVQDMLSSHYSKFKVSMIHRLRFTTDVQLGISGDKVEIDPVTNQKAS
 TKFWIKQKPI SIDCDLLCACDLAEKSPSHAVFKLTYLSSHDKHLVYFESDAATVSEIVLKVNYILESRA
 STARADYLAQKQRKLNRRTSFSFQKEKKSQQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001290625

ORF Size: 1566 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_001290625.1](#), [NP_001277554.1](#)

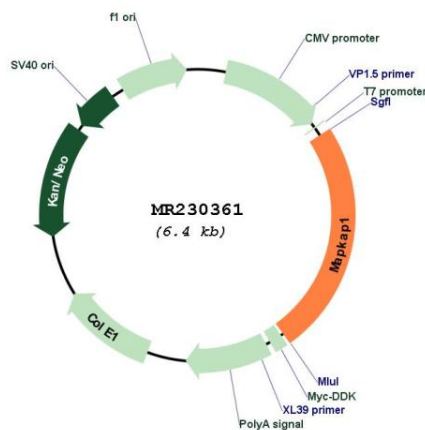
RefSeq Size: 3126 bp

RefSeq ORF: 1569 bp

Locus ID: 227743

UniProt ID: [Q8BKH7](#)

Cytogenetics:	2 B
MW:	59 kDa
Gene Summary:	Subunit of mTORC2, which regulates cell growth and survival in response to hormonal signals. mTORC2 is activated by growth factors, but, in contrast to mTORC1, seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'. Within mTORC2, MAPKAP1 is required for complex formation and mTORC2 kinase activity. MAPKAP1 inhibits MAP3K2 by preventing its dimerization and autophosphorylation. Inhibits HRAS and KRAS signaling. Enhances osmotic stress-induced phosphorylation of ATF2 and ATF2-mediated transcription. Isoform 1 is involved in ciliogenesis, regulates cilia length through its interaction with CCDC28B independently of mTORC2 complex.[UniProtKB/Swiss-Prot Function]

Product images:


Circular map for MR230361