

## Product datasheet for RC220487

### MAPKAP Kinase 2 (MAPKAPK2) (NM\_004759) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MAPKAP Kinase 2 (MAPKAPK2) (NM_004759) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MAPKAP Kinase 2
Synonyms:	MAPKAP-K2; MK-2; MK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220487 representing NM_004759 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGTCCAACCTCCAGGGCCAGAGCCCGCCGGTGCCGTTCCCCGCCCCGGCCCCGCCGCCGAGCCCC  
CCACCCCTGCCCTGCCGACCCCCCGGCGCAGCCGCCCGCCGCCCGCCCGCCAGCAGTTCCCGCAGTTCCA  
CGTCAAGTCCGGCTGCAGATCAAGAAGAAGCCATCATCGATGACTACAAGGTCACCAGCCAGGTCCTG  
GGGCTGGGCATCAACGGCAAAGTTTGCAGATCTCAACAAGAGGACCCAGGAGAAATTCGCCCTCAAAA  
TGCTTCAGGACTGCCCAAGGCCGAGGGAGGTGGAGCTGCACTGGCGGGCCTCCAGTGCCCGCACAT  
CGTACGGATCGTGGATGTGTACGAGAATCTGTACGAGGGAGGAAGTGCCTGCTGATTGTATGGAATGT  
TTGGACGGTGGAGAACTCTTAGCCGAATCCAGGATCGAGGAGACCAGGCATTCACAGAAAGAGAAGCAT  
CCGAAATCATGAAGAGCATCGGTGAGGCCATCCAGTATCTGCATTCAATCAACATTGCCCATCGGGATGT  
CAAGCCTGAGAATCTCTTATACACCTCCAAAAGGCCAACGCCATCTGAAACTCACTGACTTTGGCTTT  
GCCAAGGAAACCACCAGCCACAACCTCTTGACCACTCCTTGTATACACCGTACTATGTGGCTCCAGAAG  
TGCTGGGTCCAGAGAAGTATGACAAGTCTGTGACATGTGGTCCCTGGGTGTCATCATGTACATCCTGCT  
GTGTGGGTATCCCCCTTCTACTCCAACCACGGCCTTGCCATCTCTCCGGCATGAAGACTCGCATCCGA  
ATGGGCCAGTGAATTTCCCAACCCAGAATGGTCAGAAGTATCAGAGGAAGTGAAGATGCTCATTCGGA  
ATCTGCTGAAAACAGAGCCACCCAGAGAATGACCATCACCGAGTTTATGAACCACCTTGATCATGCA  
ATCAACAAGGTCCTCAAAACCCACTGCACACCAGCCGGTCTGAAGGAGGACAAAGGAGCGGTGGGAG  
GATGTCAAGGGTGTCTTCATGACAAGAACAGCGACCAGGCCACTTGCTGACCAGGTTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >RC220487 representing NM\_004759  
Red=Cloning site Green=Tags(s)

MLSNSQGQSPVPFPAPAPPPQPPTPALPHPPAQPPPPPPQFPQFHVKSGLQIKKNAIIDDYKVTSQL  
 GLGINGKVLQIFNKRTQEKFALKMLQDCPKARREVELHWRASQCPHIVRIVDVYENLYAGRKCLLIIMEC  
 LDGGELFSRIQDRGDQAFTEREASEIMKSIGEAIQYLHSINIAHRDVKPENLLYTSKRPNAILKLTDFGF  
 AKETTSHNSLTPCYTPYYVAPEVLGPEKYDKSCDMWSLGVIMYILLCGYPPFYSNHGLAISPGMKTRIR  
 MGQYEFNPPEWSEVSEEVKMLIRNLLKTEPTQRMTITEFMNHPWIMQSTKVPQTPPLHTSRVLKEDKERWE  
 DVKGCLHDKNSDQATWTRL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8008\\_b09.zip](https://cdn.origene.com/chromatograms/mk8008_b09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



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

**ACCN:** NM\_004759

**ORF Size:** 1110 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\\_004759.5](#)

**RefSeq Size:** 3608 bp

**RefSeq ORF:** 1113 bp

**Locus ID:** 9261

**UniProt ID:** [P49137](#)

**Cytogenetics:** 1q32.1

**Domains:** pkinase, TyrKc, S\_TKc

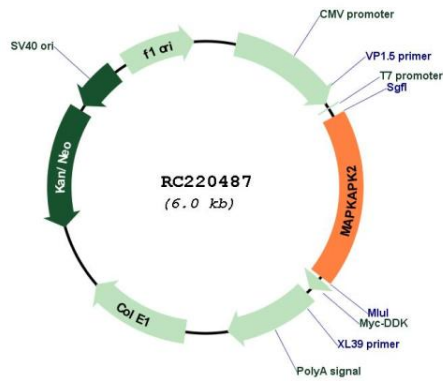
**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** MAPK signaling pathway, Neurotrophin signaling pathway, VEGF signaling pathway

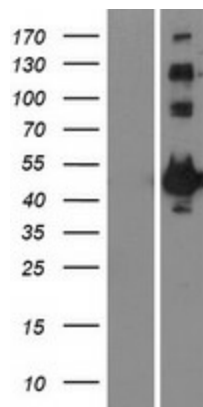
**MW:** 42 kDa

**Gene Summary:** This gene encodes a member of the Ser/Thr protein kinase family. This kinase is regulated through direct phosphorylation by p38 MAP kinase. In conjunction with p38 MAP kinase, this kinase is known to be involved in many cellular processes including stress and inflammatory responses, nuclear export, gene expression regulation and cell proliferation. Heat shock protein HSP27 was shown to be one of the substrates of this kinase in vivo. Two transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

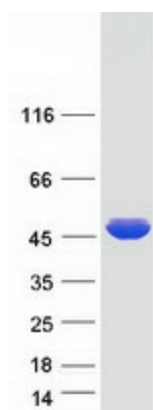
Product images:



Circular map for RC220487



Western blot validation of overexpression lysate (Cat# [LY417772]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220487 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAPKAPK2 protein (Cat# [TP320487]). The protein was produced from HEK293T cells transfected with MAPKAPK2 cDNA clone (Cat# RC220487) using MegaTran 2.0 (Cat# [TT210002]).