

## Product datasheet for **RC200358**

### MAPKAP Kinase 3 (MAPKAPK3) (NM\_004635) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MAPKAP Kinase 3 (MAPKAPK3) (NM_004635) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MAPKAP Kinase 3
Synonyms:	3PK; MAPKAP-K3; MAPKAP3; MAPKAPK-3; MDPT3; MK-3; MK3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200358 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATGGTGAACAGCAGAGGAGCAGGGGGGCCCTGTGCCCCGCCAGTTGCACCCGGCGGACCCGGCT  
TGGGCGGTGCTCCGGGGGGCGGGGAGCCAAAGAAAGTACGCAGTGACCGGACTACCAGTTGTCCAA  
GCAGGTGCTGGGCTGGGTGTGAACGGCAAAGTGTGGAGTGTCCATCGGCGCACTGGACAGAAGTGT  
GCCCTGAAGCTCCTGTATGACAGCCCCAAGGCCCGGCAGGAGGTAGACCATCACTGGCAGGCTTCTGGCC  
GCCCCATATTGTCTGCATCCTGGATGTGTATGAGAACATGCACCATGGCAAGCGCTGTCTCCTCATCAT  
CATGGAATGCATGGAAGTGGTGTGTTTCAGCAGGATTTCAGGAGCGTGGCGACCAAGGCTTTCAGTGG  
AGAGAAGCTGCAGAGATAATGCGGGATATTGGCACTGCCATCCAGTTTCTGCACAGCCATAACATTGCC  
ACCGAGATGTCAAGCCTGAAAACCTACTCTACACATCTAAGGAGAAAGACGCAGTGTAAAGCTCACCGA  
TTTTGGCTTTGCTAAGGAGACCACCCAAAATGCCCTGCAGACACCCTGTATACTCCCTATTATGTGGCC  
CCTGAGGTCTGGGTCCAGAGAAGTATGACAAGTGTGACATGTGGTCCCTGGGTGTCATCATGTACA  
TCCTCCTTTGTGGCTTCCACCCCTTCTACTCCAACACGGGCCAGGCCATCTCCCCGGGTGAAGAGGAG  
GATTCGCTGGCCAGTACGGCTTCCCCAATCTGAGTGGTCAGAAGTCTCTGAGGATGCCAAGCAGCTG  
ATCCGCCTCCTGTTGAAGACAGACCCACAGAGAGGCTGACCATCACTCAGTTTCAATGAACACCCCTGGA  
TCAACCAATCGATGGTAGTCCACAGACCCCACTCCACACGGCCGAGTGTGTCAGGAGGACAAAGACCA  
CTGGGACGAAGTCAAGGAGGAGATGACCAGTGCCTTGGCCACTATGCGGGTAGACTACGACCAGGTGAAG  
ATCAAGGACCTGAAGACCTCTAACAACCGCTCCTCAACAAGAGGAGAAAAAGCAGGCAGGCAGCTCCT  
CTGCCTCACAGGCTGCAACAACCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC200358 protein sequence  
Red=Cloning site Green=Tags(s)

MDGETAEEQGGPVPVPPVAPGGPGLGGAPGGRREPKKYAVTDDYQLSKQVLGLGVNGKVLFCFHRRTGQKC  
 ALKLLYDSPKARQEVDDHHWQASGGPHIVCILDVYENMHHGKRCLLIIMECEGGELFSRIQERGDQAFTE  
 REAAEIMRDIGTAIQFLHSHNIAHRDVKPENLLYTSKEKDAVLKLTDFGFAKETTQNALQTPCYTPYYVA  
 PEVLGPEKYDKSCDMWSLGVIMYILLCGFPPFYSNTGQAI SPGMKRRIRLGOYGFNPWEVSEDAKQL  
 IRLLLLKTDPTERLTITQFMNHPWINQSMVVPQTPLHTARVLQEDKDHWDEVKEEMTSALATMRVDYDQVK  
 IKDLKTSNNRLLNKRRKKQAGSSSASQGCNNQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6057\\_c03.zip](https://cdn.origene.com/chromatograms/mk6057_c03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004635

**ORF Size:** 1146 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\\_004635.4](#)

**RefSeq Size:** 2553 bp

**RefSeq ORF:** 1149 bp

**Locus ID:** 7867

**UniProt ID:** [Q16644](#)

**Cytogenetics:** 3p21.2

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

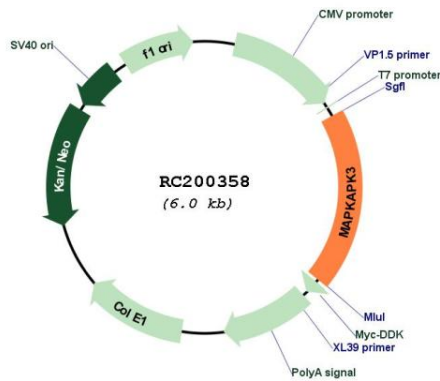
**Protein Families:** Druggable Genome, Protein Kinase

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

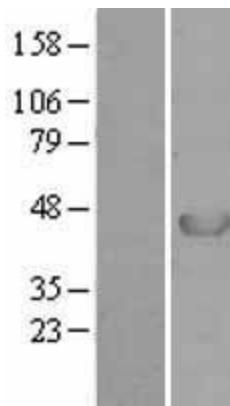
**MW:** 43 kDa

**Gene Summary:** This gene encodes a member of the Ser/Thr protein kinase family. This kinase functions as a mitogen-activated protein kinase (MAP kinase)- activated protein kinase. MAP kinases are also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This kinase was shown to be activated by growth inducers and stress stimulation of cells. In vitro studies demonstrated that ERK, p38 MAP kinase and Jun N-terminal kinase were all able to phosphorylate and activate this kinase, which suggested the role of this kinase as an integrative element of signaling in both mitogen and stress responses. This kinase was reported to interact with, phosphorylate and repress the activity of E47, which is a basic helix-loop-helix transcription factor known to be involved in the regulation of tissue-specific gene expression and cell differentiation. Alternate splicing results in multiple transcript variants that encode the same protein. [provided by RefSeq, Sep 2011]

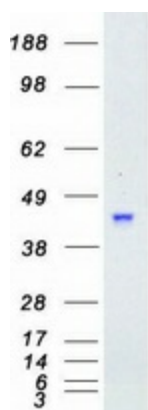
Product images:



Circular map for RC200358



Western blot validation of overexpression lysate (Cat# [LY401470]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200358 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAPKAPK3 protein (Cat# [TP300358]). The protein was produced from HEK293T cells transfected with MAPKAPK3 cDNA clone (Cat# RC200358) using MegaTran 2.0 (Cat# [TT210002]).