

Product datasheet for **RC207414**

MAPK4 (NM_002747) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAPK4 (NM_002747) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MAPK4
Synonyms:	ERK-4; ERK4; p63-MAPK; p63MAPK; PRKM4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC207414 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGAGAAGGGTACTGCATCGCCAGTGTCTATGGGTATGACCTCGTGGGCGCTTTGTTGACTTCC
 AACCCCTGGGCTTCGGTGTCAATGGTTTGGTGCTGTCGGCCATGGACAGCCGGCCCTGCCGAAGGTCGC
 TGTGAAGAAGATTGCCCTGAGCGATGCCCGCAGCATGAAGCACGCGCTCCGAGAGATCAAGATCATTCCG
 CGCCTGGACCACGACAACATCGTCAAAGGTACGAGGTGCTCGGTCCCAAGGGCACTGACCTGCAGGGTG
 AGCTGTTCAAGTTCAGCGTGGCGTACATCGTCCAGGAGTACATGGAGACCGACCTGGCACGCTGCTGGA
 GCAGGGCACGCTGGCAGAAGAGCATGCCAAGCTGTTTATGTACCAGTGTCTCCGCGGGCTCAAGTACATC
 CACTCCGCCAACGTGCTGCACAGGGACCTGAAGCCCGCCAACATTTTATCAGCACAGAGGACCTCGTGC
 TCAAGATTGGGGATTTCCGGTTGGCAAGGATCGTTGATCAGCATTACTCCACAAGGGTTATCTGTCAGA
 AGGGTTGGTAACAAAGTGTACCGTTCCCCAGACTGCTCCTTTCCCAATAACTACACAAAGCCATC
 GACATGTGGGCCCGCGCTGCATCCTGTCTGAGATGCTTACGGGGAGAATGCTCTTTGCTGGGGCCCATG
 AGCTGGAGCAGATGCAACTCATCTGGAGACCATCCCTGTAATCCGGGAGGAAGACAAGGACGAGCTGCT
 CAGGGTGTGCCTTCCTTTGTCAGCAGCACCTGGGAGGTGAAGAGGCCTCTGCGCAAGCTGCTCCCTGAA
 GTGAACAGTGAAGCCATCGACTTCTGGAGAAGATCCTGACCTTTAACCCATGGATCGCCTAACAGCTG
 AGATGGGGCTGCAACACCCTACATGAGCCATACTCGTCCCTGAGGACGAGCCACCTCACAAACCC
 CTTCCGCATTGAGGATGAGATCGACGACATCGTGTGATGGCCGTAACCAGAGCCAGCTGTCCAAGTGG
 GACACGTGCAGTTCAGGTACCTGTGACCTGTCTGCGGACCTGGAGTGGCGGCTGACCGGTGCCAGG
 ACGCCAGCGAGGTACAGCGCGACCCGCGCGGGTTTCGGCGCCACTGGCTGAGGACCTGACAGTGGACCC
 CGCAAGGACTCGCACAGCAGCTCCGAGCGCTTCTAGAGCAGTGCACACTCGTCCATGGAGCGCGCCTTC
 GAGGCCGACTACGGGCGCTCCTGCGACTACAAGGTGGGGTTCGCCGCTCCTACCTGGACAAGCTGCTGTGGC
 GCGACAACAAGCCGACCACTACTCGGAGCCAAAGCTCATCCTGGACCTGTGCGACTGGAAGCAGGCGGC
 CGGCGCGCCCCACGGCCACGGGGTGGCGGACAGGGGCGCGGAGGACGAGCCGGCCAGCCTCTTC
 CTGGAGATCGCGCAGTGGGTCAAGAGCACGAGGGCGGCCAGAGCACGCCAGCCCGCCCGCAGCACC
 CCGAGCGCGCTTGTCTGCCTCGCCCCCGCCCGCCCGCCGGTGGACGGCGGCCAGCCCCAGTT
 CGACCTGGACGTTCATCTCCCGCCCTGAAGCTCTGCACCAAGCCCGAGGACCTGCCGACAATAAA
 CTGGGCGACCTCAATGGTGCCTGCATCCCCGAGCACCTGGCGACCTCGTGCAGACCGAGGCCTTCTCCA
 AAGAAAGGTGG

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207414 protein sequence
 Red=Cloning site Green=Tags(s)

MAEKGDCIASVYGYDLGGRFVDFQPLGFGVNLVLSAMDSRACRKVAVKKIALSDARSMKHALREIKIIR
 RLDHDNIYKVEVLGPKGTDLQELFKFSVAYIVQEYMETDLARLLEQGLAEHAKLFMYQLLRGLKYI
 HSANVLRDLKPANIFISTEDLVKIGDFGLARIVDQHYSHKGYLSEGLVTKWYRSPRLLLSPNNYTKAI
 DMWAAGCILSEMLTGRMLFAGAHELEQMLILETIPVIREEDKDELLRVMPFSVSSWEVKRPLRKLPE
 VNSEAIIDFLEKILTFNPMDRLEAEMGLQHPYMSYSPPEDEPTSQHPFRIEDEIDDIVLMAANQSQLSNW
 DTCSSRYPVSLSSDLEWRPDRCQDASEVQRDPAGSAPLAEDVQVDPKDSHSSSERFLEQSHSSMERAF
 EADYGRSCDYKVGSPSYLDKLLWRDNKPHHYSEPKLILDLSHWKQAAGAPPTATGLADTGAREDEPASLF
 LEIAQWVKSTQGGPEHASPPADDPERRLSASPPGRPAPVDGGASPFDLDFVISRALKLCTKPEDLPDNK
 LGDLNGACIPEHPGDLVQTEAFSKERW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6271_g11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002747

ORF Size: 1761 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_002747.3](#), [NP_002738.2](#)

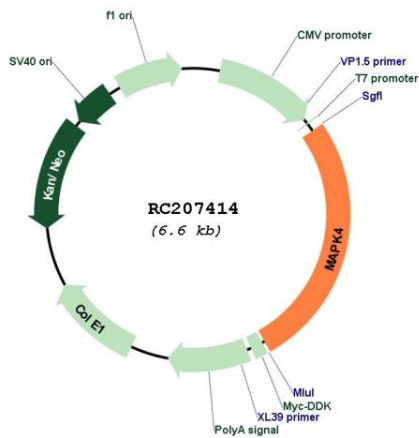
RefSeq Size: 4736 bp

RefSeq ORF: 1764 bp

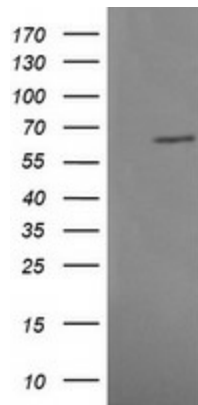
Locus ID: 5596
UniProt ID: [P31152](#)
Cytogenetics: 18q21.1-q21.2
Domains: pkinase, TyrKc, S_TKc
Protein Families: Druggable Genome, Protein Kinase
MW: 66 kDa

Gene Summary: Mitogen-activated protein kinase 4 is a member of the mitogen-activated protein kinase family. Tyrosine kinase growth factor receptors activate mitogen-activated protein kinases which then translocate into the nucleus and phosphorylate nuclear targets. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014]

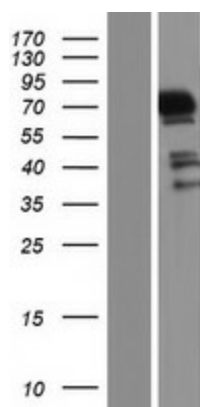
Product images:



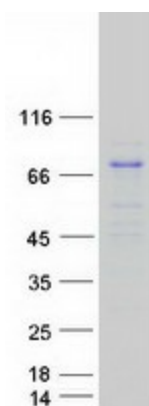
Circular map for RC207414



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MAPK4 (Cat# RC207414, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MAPK4(Cat# [TA505808]). Positive lysates [LY419131] (100ug) and [LC419131] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419131]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207414 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAPK4 protein (Cat# [TP307414]). The protein was produced from HEK293T cells transfected with MAPK4 cDNA clone (Cat# RC207414) using MegaTran 2.0 (Cat# [TT210002]).