

Product datasheet for **RG207414**

MAPK4 (NM_002747) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAPK4 (NM_002747) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MAPK4
Synonyms:	ERK-4; ERK4; p63-MAPK; p63MAPK; PRKM4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG207414 representing NM_002747
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGAGAAGGGTGACTGCATCGCCAGTGTCTATGGGTATGACCTCGTGGGCGCTTTGTTGACTTCC
 AACCCCTGGGCTTCGGTGTCAATGGTTTGGTGCTGTCGGCCATGGACAGCCGGCCCTGCCGAAGGTCGC
 TGTGAAGAAGATTGCCCTGAGCGATGCCCGCAGCATGAAGCACGCGCTCCGAGAGATCAAGATCATTCCGG
 CGCCTGGACCACGACAACATCGTCAAAGGTACGAGGTGCTCGGTCCCAAGGGCACTGACCTGCAGGGTG
 AGCTGTTCAAGTTCAGCGTGGCGTACATCGTCCAGGAGTACATGGAGACCGACCTGGCACGCTGCTGGA
 GCAGGGCACGCTGGCAGAAGAGCATGCCAAGCTGTTTATGTACCAGTGTCTCCGCGGGCTCAAGTACATC
 CACTCCGCCAACGTGCTGCACAGGGACCTGAAGCCCGCCAACATCTTCATCAGCACAGAGGACCTCGTGC
 TCAAGATTGGGGATTTCCGGTTGGCAAGGATCGTTGATCAGCATTACTCCACAAGGGTTATCTGTCAGA
 AGGGTTGGTAACAAAGTGTACCGTTCCCCACGACTGCTCTTTCCCAATAACTACACAAAGCCATC
 GACATGTGGGCCCGCGCTGCATCCTGTCTGAGATGCTTACGGGGAGAATGCTCTTTGCTGGGGCCATG
 AGCTGGAGCAGATGCAACTCATCTGGAGACCATCCCTGTAATCCGGGAGGAAGACAAGGACGAGCTGCT
 CAGGGTGTGCCTTCCTTTGTCAGCAGCACCTGGGAGGTGAAGAGGCCTCTGCGCAAGCTGCTCCCTGAA
 GTGAACAGTGAAGCCATCGACTTCTGGAGAAGATCCTGACCTTTAACCCATGGATCGCCTAACAGCTG
 AGATGGGGCTGCAACACCCTACATGAGCCATACTCGTCCCTGAGGACGAGCCACCTCACAAACCC
 CTTCCGCATTGAGGATGAGATCGACGACATCGTGTGATGGCCGTAACCAGAGCCAGCTGTCCAAGTGG
 GACACGTGCAGTCCAGGTACCTGTGACCTGTCTGCGGACCTGGAGTGGCGCCTGACCGGTGGACCC
 ACGCCAGCGAGGTACAGCGCGACCCGCGCGGGTTTCGGCGCCACTGGCTGAGGACGTGCAGGTGGACCC
 CGGCAAGGACTCGCACAGCAGCTCCGAGCGCTTCTAGAGCAGTGCACACTCGTCCATGGAGCGCGCTTC
 GAGGCCGACTACGGGCGCTCCTGCGACTACAAGGTGGGGTTCGCCCTCTACCTGGACAAGCTGCTGTGGC
 GCGACAACAAGCCGACCACTACTCGGAGCCAAAGCTCATCTGGACCTGTGCGACTGGAAGCAGGCGGC
 CGGCGCGCCCCACGGCCACGGGGTGGCGGACAGGGGGCGCGGAGGACGAGCCGGCCAGCCTCTTC
 CTGGAGATCGCGCAGTGGGTCAAGAGCACGAGGGCGGCCAGAGCACGCCAGCCCGCCCGGACGACC
 CCGAGCGCGCTGTCTGCCTCGCCCCCGCCCGCCCGCCGGTGGACGGCGGCCAGCCCCAGTT
 CGACCTGGACGTTCATCTCCCGCCCTGAAGCTCTGCACCAAGCCCGAGGACCTGCCGACAATAAA
 CTGGGCGACCTCAATGGTGCATCGTCCCGAGCACCTGGCGACCTCGTGCAGACCGAGGCCTTCTCCA
 AAGAAAGGTGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG207414 representing NM_002747
 Red=Cloning site Green=Tags(s)

MAEKGDCIASVYGYDLGGRFVDFQPLGFGVNLVLSAMDSRACRKYAVKKIALSDARSMKHALREIKIIR
 RLDHDNIVKYEVLPKGTDLQGELFKFSVAYIVQEYMETDLARLLEQGTLAEEHAKLFMYQLLRGLKYI
 HSANVLRDLKPANIFISTEDLVKIGDFGLARIVDQHYSHKGYLSEGLVTKWYRSPRLLSPNNYTKAI
 DMWAAGCILSEMLTGRMLFAGAHELEQMQLILETIPVIREEDKDELLRVMPFSVSTWEVKRPLRKLPE
 VNSEAIIDFLEKILTFNPMDRLEAEMGLQHPYMSYSCPEDEPTSQHPFRIEDEIDDIVLMAANQSQLSNW
 DTCSSRYPVSLSSDLEWRPDRCQDASEVQRDPAGSAPLAEDVQVDPKDSHSSSERFLEQSHSSMERAF
 EADYGRSCDYKVGSPSYLDKLLWRDNKPHHYSEPKLILDLSHWKQAAGAPPTATGLADTGAREDEPASLF
 LEIAQWVKSTQGGPEHASPPADDPERRLSASPPGRPAPVDGGASPOFDLDFVISRALKLCTKPEDLPDNK
 LGDLNGACIPEHPGDLVQTEAFSKERW

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-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.

RefSeq: [NM_002747.3](#), [NP_002738.2](#)

RefSeq Size: 4736 bp

RefSeq ORF: 1764 bp

Locus ID: 5596

UniProt ID: [P31152](#)

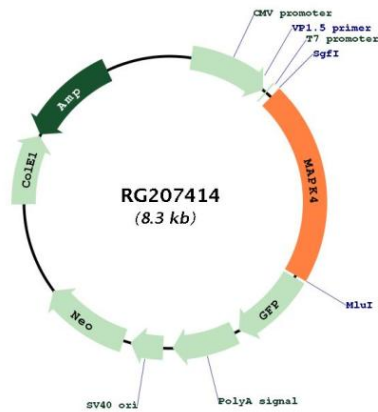
Cytogenetics: 18q21.1-q21.2

Domains: pkinase, TyrKc, S_TKc

Protein Families: Druggable Genome, Protein Kinase

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 RG207414