

Product datasheet for **RC208304**

PRAK (MAPKAPK5) (NM_139078) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRAK (MAPKAPK5) (NM_139078) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MAPKAPK5
Synonyms:	MAPKAP-K5; MK-5; MK5; PRAK
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC208304 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGGAGGAGAGCGACATGGACAAAGCCATCAAGGAACTTCCATTTTAGAAGAATACAGTATCAATT
 GGACTCAGAAGCTGGGAGCTGGAATTAGTGGTCCAGTTAGAGTCTGTGTAAGAAATCTACTCAAGAACG
 GTTTGCGCTGAAAATTCTTCTTGATCGTCCAAAAGCTAGAAATGAGGTACGTCTGCACATGATGTGTGCC
 ACACACCCAAACATAGTTCAGATTATTGAAGTGTGCTAACAGTGTCCAGTTTCCCATGAGTCCAGCC
 CTAGGGCCCGACTCTTAATTGTAATGGAGATGATGGAAGGGGAGAGCTATTTACAGAATCAGCCAGCA
 CCGGCACCTTACAGAGAAGCAAGCCAGCCAAGTAACAAAGCAGATAGCTTTGGCTCTGCGGCACTGTAC
 TTGTTAAACATTGCGCACAGAGACCTCAAGCCTGAAAATCTGCTTTTTAAGGATAACTCTTTGGATGCC
 CAGTGAAGTTGTGTGACTTTGGATTTGCCAAGATTGACCAAGGTGACTTGATGACACCCAGTTCACCCC
 TTATTATGTAGCACCCAGGTACTGGAGCGCAAAGAAGGCATCAGAAGGAGAAATCTGGCATCATACCT
 ACCTCACCGACGCCCTACACTTACAACAAGAGCTGTGACTTGTGGTCCCTAGGGGTGATTATCTATGTGA
 TGCTGTGCGGATACCTCCTTTTTACTCAAAACACCACAGCCGGACTATCCCAAAGGATATGCGAAGAAA
 GATCATGACAGGCAGTTTTGAGTTCAGAGGAAGAGTGGAGTCAGATCTCAGAGATGGCCAAAGATGTT
 GTGAGGAAGCTCCTGAAGGTCAAACCGGAGGAGAGACTCACCATCGAGGGAGTGTGGACCACCCCTGGC
 TCAATTCACCGAGGCCCTGGATAATGTCTGCCTTCTGCTCAGCTGATGATGGACAAGGCAGTGGTTGC
 AGGAATCCAGCAGGCTCACGCGGAACAGTTGGCCAACATGAGAATCCAGGATCTGAAAGTCAGCCTCAA
 CCCCTGCCTCAGTGAACAACCCATTCTGCGGAAGAGGAAGTTACTTGGCACCAGCCAAAGGACAGTG
 TCTATATCCACGACCATGAGAATGGAGCCGAGGATTCCAATGTTGCCTTGAAAAACTCCGAGATGTGAT
 TGCTCAGTGTATTCTCCCCAGGCTGGAGAGAATGAAGATGAGAAACTGAATGAAGTAATGCAGGAGGCT
 TGGAAGTATAACCGGAATGCAAACCTAAGAGATACTCTGCAGAGCTTCAAGTGGTGGTGGAT
 TCACAGATAAAGTAGATCGACTAAAACCTGGCAGAAATTGTGAAGCAGGTGATAGAAGAGCAAACCGCTC
 CCACGAATCCCAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208304 protein sequence
 Red=Cloning site Green=Tags(s)

MSEESDMDKAIKETSILEEYSINWTQKLGAGISGPVRCVVKSTQERFALKILLDRPKARNEVRLHMMCA
 THPNIVQIIIEVFANSVQFPHESSPRARLLIVMEMMEGGELFHRISQHRHFTEKQASQVTKQIALALRHCH
 LLNIAHRDLKPENLLFKDNLDPVKLCDFGFAKIDQGDLMPQFTPYVYVAPQVLEAQRHHQKEKSGIIP
 TSPTPYTYNKSCDLWSLGVIIYVMLCGYPPFYSKHHSRTIPKDMRRKIMTGSFEFPEEWSQISEMAKDV
 VRKLLKVKPEERLTIEGLDHPWLNSTEALDNVLPQAQLMMDKAVVAGIQQAHAELANMRIQDLKVSLE
 PLHSVNNPILRKRKLLGKPKDSVYIHDHENGAEEDSNVALEKLRDVIQAQCILPQAGENEDEKLEVMQEA
 WKYNRECKLLRDLQSF SWNGRGTDKVDRLKLAIEIVKQVIEEQTTSHESQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

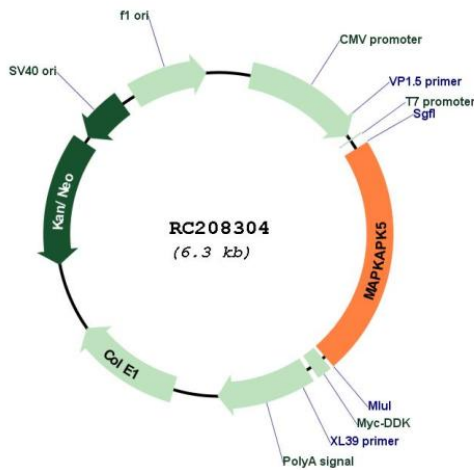
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_139078

ORF Size:

1656 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_139078.3](#)

RefSeq Size: 2313 bp

RefSeq ORF: 1422 bp

Locus ID: 8550

UniProt ID: [Q8IW41](#)

Cytogenetics: 12q24.12-q24.13

Domains: pkinase

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: MAPK signaling pathway

MW: 54 kDa

Gene Summary: The protein encoded by this gene is a tumor suppressor and member of the serine/threonine kinase family. In response to cellular stress and proinflammatory cytokines, this kinase is activated through its phosphorylation by MAP kinases including MAPK1/ERK, MAPK14/p38-alpha, and MAPK11/p38-beta. The encoded protein is found in the nucleus but translocates to the cytoplasm upon phosphorylation and activation. This kinase phosphorylates heat shock protein HSP27 at its physiologically relevant sites. Two alternately spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Nov 2012]