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Product datasheet for MR210486

Mapk7 (NM_011841) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk7 (NM_011841) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mapk7
Synonyms:	BMK-1; BMK1; ERK-5; ERK5; Erk5-T; PRKM7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>MR210486 representing NM_011841
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGAACCGCTGAAGGAGGAGGACGGCGAAGATGGCTCTGGGGAGCCCCCTGGGAGGGTGAAGGCAG
AACCCGTTCACACCGCTGCCTCTGTGGTGGCCAAGAACCTGGCCCTGCTCAAAGCCCGCTCCTTCGACGT
GACCTTTGACGTGGGGGACGAGTACGAGATCATCGAGACCATAGGCAATGGGGCCTACGGGGTGGTGTCT
TCGGCGCGCCGCCGCCTCACGGGCCAGCAGGTGGCCATCAAGAAGATACCTAATGCTTTTGATGTGGTGA
CCAATGCCAAACGGACCCTCAGGGAGCTGAAGATCCTCAAACACTTCAAACACGACAATATCATCGCCAT
CAAGGACATCCTGAAGCCTACTGTGCCCTATGGAGAATTCAGATCTGTCTATGTGGTACTGGACCTCATG
GAGAGCGACCTACACCAGATCATTCACTCTTCACAGCCGCTCACCCTGGAACATGTGAGATACTTCCTGT
ACCAGCTGCTTCGGGGCCTCAAATACATGCACTCTGCTCAGGTCATCCACCGTGATCTTAAACCCTCTAA
CCTTCTGGTCAATGAGAACTGTGAGCTCAAGATCGGTGACTTTGGAATGGCCCGTGGCCTCTGTACTTCC
CCTGCCGAGCACCAGTACTTCATGACTGAGTATGTGGCTACTCGCTGGTACCGTGCCCCGGAGCTCATGC
TTTCCCTGCACGAGTATACGCAGGCAATCGACCTCTGGTCTGTGGGCTGCATCTTTGGTGAGATGCTGGC
TCGGCGCCAGCTCTTCCCAGGCAAAAACTACGTGCACCAGTTACAGCTGATCATGATGGTGTTGGGAACT
CCGTCACCAGCTGTGATTCAGGCTGTGGGGGCTGAAAGGGTGCGAGCCTATATCCAGAGCCTGCCACCAA
GGCAACCTGTGCCTTGGGAGACAGTATACCCAGGTGCTGACCGCCAGGCCCTCTCCCTGCTGGGACGCAT
GTTGCGATTTGAACCCAGTGCCCGAATCTCAGCTGCTGCTGCCCTTCGCCACCCCTTCCTGGCTAAGTAC
CATGACCCTGATGATGAGCCTGATTGCGCCCCACCTTTTGACTTTGCTTTTGACCGTGAAGCCCTTACCA
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CTCAGAGATGGGCCCAGTGCACCCTTGGAGGCGCCTGAGCCTCGAAAGCCCGTGACAGCTCAGGAACGCC
AGCGAGAACGAGAAGAGAAGCGCAGGAGGCGACAAGAGAGAGCCAAGGAGCGGGAGAAGCGACGACAAGA
GAGAGAACGCAAGGAGAGGGGGGCTGGTACCTTGGGGGGCCCCTCTACTGACCCTCTGGCTGGACTGGTG
CTCAGTGACAATGACCGAAGCCTGCTAGAGCGGTGGACTCGCATGGCTAGGCCTCCTGCCCCTGCCCCTG
CCCCAGCGCCAGCACCAGCGCCAGCACCGTCCTCTGCCCAGCCCACTAGTACTCCTACTGGCCCCGTATC
TCAGTCTACTGGTCCTCTACAGCCTGCAGGCTCTATTCCGGGTCCTGCCTCCCAGCCTGTTTGCCCACCC
CCTGGCCCTGTTCCCCAGCCTGCTGGCCCTATCCCTGCTCCGCTCCAGACTGCCCCTTCCACTAGCCTTT
TGGCCTCCCAGTCACTTGTGCCACCTAGTGGGTTGCCTGGTTCTGGTGCCCCAGAAGTTCTGCCTTACTT
CCCATCTGGCCCACCACCTCCAGATCCTGGGCTCACCCCTCAGCCTTCTACATCAGAGTCACCTGATGTC
AACCTGGTGACTCAGCAGCTGTCCAAGTCTCAGGTGGAGGACCCCCTGCCTCCTGTGTTCTCTGGCACTC
CAAAGGGCAGTGGGGCTGGCTACGGAGTTGGCTTTGATCTGGAGGAATTCTTAAATCAATCTTTTGATAT
GGGTGTGGCTGATGGGCCACAGGATGGCCAGGCAGACTCAGCCTCACTCTCAGCCTCTCTCCTTGCTGAC
TGGCTTGAGGGCCATGGCATGAACCCTGCTGACATTGAGTCTCTGCAGCGTGAGATCCAGATGGACTCCC
CAATGCTGCTGTCTGACCTGCCTGACCTCCAAGAGCCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>MR210486 representing NM_011841
Red=Cloning site Green=Tags(s)

MAEPLKEEDGEDGSGEPPGRVKAEPVHTAASVVAKNLALLKARSFDVTFDVGDEYEIIETIGNGAYGVVS
SARRRLTGQQVAIKKIPNAFDVVTNAKRTLRELKILKHFKHDNIIAIKDILKPTVPYGEFRSVYVVLDLM
ESDLHQIIHSSQPLTLEHVRYFLYQLLRGLKYMHSAQVIHRDLKPSNLLVNENCELKIGDFGMARGLCTS
PAEHQYFMTEYVATRWYRAPELMLSLHEYTQAIDLWSVGCIFGEMLARRQLFPGKNYVHQLQLIMMVLGT
PSPAVIQAVGAERVRAYIQSLPPRQPVPWETVYPGADRQALSLLGRMLRFEPSARISAAAALRHPFLAKY
HDPDDEPDCAPPFDFAFDREALTRERIKEAIVAEIEDFHARREGIRQQIRFQPSLQPVASEPVCPDVEMP
SPWAPSGDCAMESPPPALPPCSDPAPDTVDLTLQPAPPASELAPPKREGAISDNTKAALKAALLKSLRSR
LRDGPSAPLEAPEPRKPVTAQERQREREEKRRRRQERAKEREKRRQERERKERGAGTLGGPSTDPLAGLV
LSDNDRSLLERWTRMARPPAPAPAPAPAPAPAPSSAQPTSTPTGPVSQSTGPLQPAGSIPGPASQPVCPP
PGPVPQPAGPIPAPLQTAPSTSLLASQSLVPPSGLPGSGAPEVLPYFPSGPPPPDPGLTPQPSTSESPDV
NLVTQQLSKSQVEDPLPPVFSGTPKGSGAGYGVGFDLEEFLNQSFDMGVADGPQDGQADSASLSASLLAD
WLEGHGMNPADIESLQREIQMDSPMLLSDLPDLQEP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9009_f10.zip

Restriction Sites: SgfI-MluI

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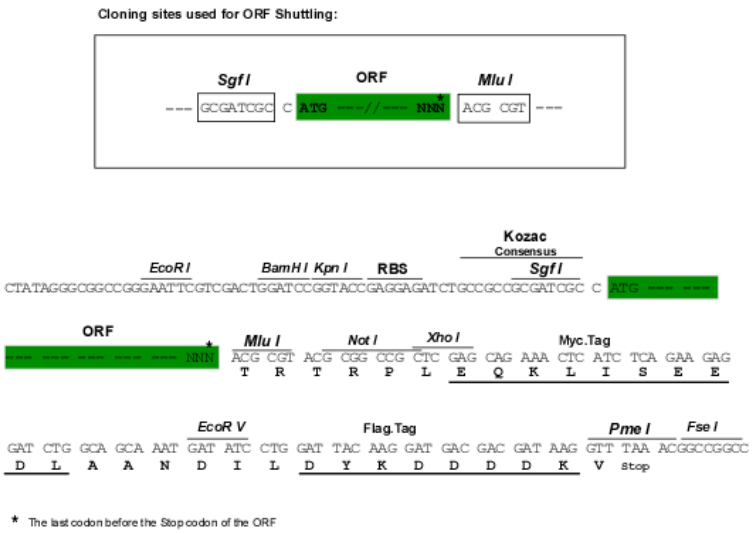
Cloning Scheme:



ACCN:	NM_011841
ORF Size:	2418 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).

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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_011841.2, NP_035971.1

RefSeq Size: 2945 bp

RefSeq ORF: 2421 bp

Locus ID: 23939

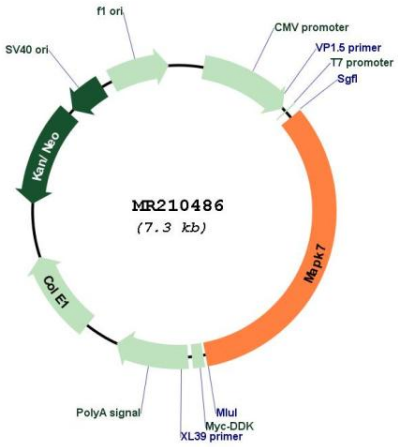
UniProt ID: Q9WVS8

Cytogenetics: 11 B2

MW: 88.2 kDa

Gene Summary: Plays a role in various cellular processes such as proliferation, differentiation and cell survival. The upstream activator of MAPK7 is the MAPK kinase MAP2K5. Upon activation, it translocates to the nucleus and phosphorylates various downstream targets including MEF2C. EGF activates MAPK7 through a Ras-independent and MAP2K5-dependent pathway. May have a role in muscle cell differentiation. May be important for endothelial function and maintenance of blood vessel integrity. MAP2K5 and MAPK7 interact specifically with one another and not with MEK1/ERK1 or MEK2/ERK2 pathways. Phosphorylates SGK1 at Ser-78 and this is required for growth factor-induced cell cycle progression (By similarity). Involved in the regulation of p53/TP53 by disrupting the PML-MDM2 interaction (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210486

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