

Product datasheet for **MC228817**

Mapk7 (NM_001291033) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk7 (NM_001291033) Mouse Untagged Clone
Tag:	Tag Free
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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Fully Sequenced ORF: >MC228817 representing NM_001291033
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTGTGGACTGCTTTCCAGAGGCGGCCAGCAGGTGGCCATCAAGAAGATACCTAATGCTTTTGATGTGG
 TGACCAATGCCAAACGGACCCTCAGGGAGCTGAAGATCCTCAAACACTTCAAACACGACAATATCATCGC
 CATCAAGGACATCCTGAAGCCTACTGTGCCCTATGGAGAATTCAGATCTGTCTATGTGGTACTGGACCTC
 ATGGAGAGCGACCTACACCAGATCATTCACTCTTACAGCCGCTCACCCCTGGAACATGTGAGATACTTCC
 TGTACCAGCTGCTTCGGGGCCTCAAATACATGCACTCTGCTCAGGTATCCACCCTGATCTTAAACCCTC
 TAACCTTCTGGTCAATGAGAAGTGTGAGCTCAAGATCGGTGACTTTGGAATGGCCCGTGGCCTCTGACT
 TCCCTGCCGAGCACCAGTACTTCATGACTGAGTATGTGGCTACTCGTGGTACCGTGCCTCCGGAGCTCA
 TGCTTTCCCTGCACGAGTATACGCAGGCAATCGACCTCTGGTCTGTGGGCTGCATCTTTGGTGGATGCT
 GGCTCGGCGCCAGCTCTCCAGGCAAAAACACGTGCACCAGTTACAGCTGATCATGATGGTGTGGGA
 ACTCCGTACCCAGCTGTGATTACGGCTGTGGGGCTGAAAGGGTGCAGCCCTATATCCAGAGCCTGCCAC
 CAAGGCAACCTGTGCCTTGGGAGACAGTATACCCAGGTGCTGACCGCCAGGCCCTCTCCCTGCTGGGACG
 CATGTTGCGATTTGAACCCAGTGCCGAATCTCAGCTGCTGCTGCCCTTCGCCACCCCTTCTGGCTAAG
 TACCATGACCCTGATGATGAGCCTGATTGCGCCCCACCTTTTGACTTTGCTTTTGACCGTGAAGCCCTTA
 CCAGGGAGCGCATTAAAGGAGGCCATTGTGGCTGAGATTGAGGACTTCCATGCACGACGGGAGGGCATCCG
 CCAACAAATCCGCTTCCAGCCTTCTCTGCAGCCTGTGGCTAGTGAGCCTGTGTGCCAGATGTTGAGATG
 CCCAGTCCCTGGGCTCCAAGTGGAGACTGTGCCATGGAGTGCCTCCCTCCAGCACTGCCACCATGCTCTG
 ATCTGACCTGACACCCGTTGATCTGACTCTGCAGCCTGCCCGCCGAGTGCAGCTTGGCTCCACAAA
 AAGAGAGGGTGCCATCTCCGACAATACCAAGCAGCCCTCAAAGCTGCCCTGCTCAAGTCCCTAAGGAGC
 AGGCTCAGAGATGGGCCAGTGCACCCCTTGGAGGCGCCTGAGCCTCGAAAGCCCGTGCAGCTCAGGAAC
 GCCAGCGAGAACGAGAAGAGAAGCGCAGGAGGCGACAAGAGAGAGCAAGGAGCGGGAGAAGCGACGACA
 AGAGAGAGAACGCAAGGAGAGGGGGGCTGGTACCTTGGGGGGCCCTCTACTGACCCTCTGGCTGGACTG
 GTGCTCAGTGACAATGACCGAAGCCTGCTAGAGCGGTGGACTCGCATGGCTAGGCCTCTGCCCTGCC
 CTGCCCCAGCGCCAGCACCAGCGCCAGCACCCTCTGCCCAGCCACTAGTACTCCTACTGGCCCCGT
 ATCTCAGTCTACTGGTCTCTACAGCCTGCAGGCTCTATTCGGGTCTGCTCCAGCCTGTTTGGCCA
 CCCCTGGCCCTGTTCCCGCCTGCTGGCCCTATCCCTGCTCCGCTCCAGACTGCCCTTCCACTAGCC
 TTTTGGCCTCCAGTCACTTGTGCCACCTAGTGGGTTGCCTGGTTCTGGTGCCTCCAGAGTCTGCCTTA
 CTCCCATCTGGCCCACCACCTCCAGATCCTGGGCTCACCCCTCAGCCTTCTACATCAGAGTCAACCTGAT
 GTCAACCTGGTACTCAGCAGCTGTCCAAGTCTCAGGTGGAGACCCCTGCCTCCTGTGTTCTCTGGCA
 CTCAAAGGGCAGTGGGGCTGGCTACGGAGTTGGCTTTGATCTGGAGGAATTTAAATCAATCTTTTGA
 TATGGGTGTGGCTGATGGGCCACAGGATGGCCAGGCACTCAGCCTCACTCTCAGCCTCTCTCCTTGT
 GACTGGCTTGAGGGCCATGGCATGAACCCTGCTGACATTGAGTCTCTGCAGCGTGAGATCCAGATGGACT
 CCCCAATGCTGCTGTCTGACCTGCCTGACCTCCAAGAGCCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001291033
Insert Size: 2214 bp
OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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:	<u>NM_001291033.1</u> , <u>NP_001277962.1</u>
RefSeq Size:	3049 bp
RefSeq ORF:	2214 bp
Locus ID:	23939
UniProt ID:	<u>Q9WVS8</u>
Cytogenetics:	11 B2
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (3) differs in its 5' UTR uses an alternate start codon, compared to variant 1. The encoded isoform (b) has a shorter and distinct N-terminus, compared to isoform a.</p>