

## Product datasheet for **MC221757**

### Mapk7 (NM\_011841) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk7 (NM_011841) 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:** >MC221757 representing NM\_011841  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCGAACCGCTGAAGGAGGAGGACGGCGAAGATGGCTCTGGGGAGCCCCCTGGGAGGGTGAAGGCAG  
 AACCCGTTACACCGCTGCCTCTGTGGTGGCCAAGAACCCTGGCCCTGCTCAAAGCCCGCTCCTTCGACGT  
 GACCTTTGACGTGGGGGACGAGTACGAGATCATCGAGACCATAGGCAATGGGGCTACGGGGTGGTGTCT  
 TCGGGCGCGCCGCCTCACGGGCCAGCAGGTGGCCATCAAGAAGATACCTAATGCTTTTGTATGTGGTGA  
 CCAATGCCAAACGGACCCTCAGGGAGCTGAAGATCCTCAAACACTTCAAACACGACAATATCATCGCCAT  
 CAAGGACATCCTGAAGCCTACTGTGCCCTATGGAGAATTCAGATCTGTCTATGTGGTACTGGACCTCATG  
 GAGAGCGACCTACACCAGATCATTCACTCTTCACAGCCGCTCACCTGGAACATGTGAGATACTTCTGT  
 ACCAGTGTCTTCGGGGCCTCAAATACATGCACTCTGCTCAGGTATCCACCGTATCTTAAACCCTTAA  
 CCTTCTGGTCAATGAGAAGTGTGAGCTCAAGATCGGTGACTTTGGAATGGCCCGTGGCCTCTGTACTTCC  
 CCTGCCGAGCACCAGTACTTCATGACTGAGTATGTGGTACTCGCTGGTACCGTGGCCCGGAGCTCATGC  
 TTTCCCTGCACGAGTATACGCAGGCAATCGACCTCTGGTCTGTGGGCTGCATCTTTGGTGAAGTGTGGC  
 TCGGGCCAGCTCTCCAGGCAAAAACACTGTCACACAGTTACAGCTGATCATGATGGTGTGGGAACT  
 CCGTCACCAGCTGTGATTCAGGCTGTGGGGGCTGAAAGGGTGGCAGCCTATATCCAGAGCCTGCCACAA  
 GGCAACCTGTGCCTTGGGAGACAGTATACCCAGGTGTGACCGCCAGGCCCTCTCCCTGTGGGACGCAT  
 GTTGGGATTTGAACCCAGTGCCGAATCTCAGCTGCTGCTGCCCTTCGCCACCCCTTCTGGCTAAGTAC  
 CATGACCCTGATGATGAGCCTGATTGCGCCCCACCTTTGACTTTGCTTTTGACCGTGAAGCCCTTACCA  
 GGGAGCGCATTAAAGGAGGCCATTGTGGCTGAGATTGAGGACTTCCATGCACGACGGGAGGGCATCCGCCA  
 ACAAAATCCGCTTCCAGCCTTCTCTGCAGCCTGTGGCTAGTGAGCCTGTGTGTCCAGATGTTGAGATGCC  
 AGTCCCTGGGCTCCAAGTGGAGACTGTGCCATGGAGTGCCTCCTCCAGCACTGCCACCATGCTCTGATC  
 CTGCACCTGACACCGTTGATCTGACTCTGCAGCCTGCCCGCCGGCCAGTGAAGTGTCTCCACAAAAAG  
 AGAGGGTGCCATCTCCGACAATACCAAAGCAGCCCTCAAAGTGCCTGCTCAAGTCCCTAAGGAGCAGG  
 CTCAGAGATGGGCCAGTGCACCCTTGGAGGCGCCTGAGCCTCGAAAGCCCGTGCAGCTCAGGAACGCC  
 AGCGAGAACGAGAAGAGAAGCGCAGGAGGCGACAAGAGAGGCCAAGGAGCGGGAGAAGCGACGACAAGA  
 GAGAGAACGCAAGGAGAGGGGGGCTGGTACCTTGGGGGGCCCTCTACTGACCCTCTGGCTGGACTGGT  
 CTCAGTGACAATGACCGAAGCCTGCTAGAGCGGTGGACTCGCATGGCTAGGCCTCCTGCCCTGCCCTG  
 CCCAGCGCCAGCACCAGCGCCAGCACCCTCCTGCCCCAGCCACTAGTACTCCTACTGCCCCCGTATC  
 TAGTCTACTGGTCTCTACAGCCTGCAGGCTCTATTCCGGGTCCTGCCTCCCAGCCTGTTTGCCCAACC  
 CCTGGCCCTGTTCCCGAGCCTGCTGGCCCTATCCCTGCTCCGCTCCAGACTGCCCTTCCACTAGCCTTT  
 TGGCCTCCAGTCACTTGTGCCACCTAGTGGGTGCCTGGTCTGGTGGCCAGAAAGTCTGCCTTACTT  
 CCCATCTGGCCACCACCTCCAGATCCTGGGCTCACCCCTCAGCCTTCTACATCAGAGTCACTGATGTC  
 AACCTGGTGAAGCAGCTGTCCAAGTCTCAGGTGGAGGACCCCTGCCTCCTGTGTTCTCTGGCACTC  
 CAAAGGGCAGTGGGGCTGGCTACGGAGTTGGCTTTGATCTGGAGGAATCTTAAATCAATCTTTTGAT  
 GGGTGTGGCTGATGGGCCACAGGATGGCCAGGCAGACTCAGCCTCACTCTCAGCCTCTCCTTGTGAC  
 TGGCTTGAAGGCCATGGCATGAACCCTGCTGACATTGAGTCTCTGCAGCGTGAAGTCCAGATGGACTCCC  
 CAATGCTGCTGTCTGACCTGCCTGACCTCCAAGAGCCCTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_011841  
**Insert Size:** 2421 bp

<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_011841.2</a> , <a href="#">NP_035971.1</a>
<b>RefSeq Size:</b>	2999 bp
<b>RefSeq ORF:</b>	2421 bp
<b>Locus ID:</b>	23939
<b>UniProt ID:</b>	<a href="#">Q9WVS8</a>
<b>Cytogenetics:</b>	11 B2
<b>Gene Summary:</b>	<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).</p> <p>[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (a). Both variants 1 and 2 encode the same isoform.</p>