

Product datasheet for **SC120584**

ERK5 (MAPK7) (NM_139033) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ERK5 (MAPK7) (NM_139033) Human Untagged Clone
Tag:	Tag Free
Symbol:	ERK5
Synonyms:	BMK1; ERK4; ERK5; PRKM7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for NM_002749.2
CGGCCTTTGAACAAGTAAGTGAGCCACCCTCGGAGACCCCGCGCTGGGGACGGGAGGCC
GGCGAGCCTCGGGACCTCTGAAAGCCTTGAGGAGGCGCGGGACACCATGGCCGAGCCTC
TGAAGGAGGAAGACGGCGAGGACGGCTCTGCGGAGCCCCCGGGCCCGTGAAGGCCGAAC
CCGCCCACACCGCTGCCTCTGTAGCGGCAAGAACCTGGCCCTGCTTAAAGCCCGCTCCT
TCGATGTGACCTTTGACGTGGGCGACGAGTACGAGATCATCGAGACCATAGGCAACGGGG
CCTATGGAGTGGTCTCCCGCCCGCCGCTCACCGGCCAGCAGGTGGCCATCAAGA
AGATCCCTAATGCTTTCGATGTGGTGACCAATGCCAAGCGGACCCTCAGGGAGCTGAAGA
TCCTCAAGCACTTTAAACACGACAAACATCATCGCCATCAAGGACATCCTGAGGCCACCG
TGCCCTATGGCGAATTCAAATCTGTCTACGTGGTCTGGACCTGATGGAAAGCGACCTGC
ACCAGATCATCCACTCCTCACAGCCCCTCACACTGGAACACGTGCGCTACTTCTGTACC
AACTGCTGCGGGGCTGAAGTACATGCACTCGGCTCAGGTATCCACCGTACCTGAAGC
CCTCCAACCTATTGGTGAATGAGAACTGTGAGCTCAAGATTGGTGACTTTGGTATGGCTC
GTGGCCTGTGCACCTCGCCCGCTGAACATCAGTACTTCATGACTGAGTATGTGGCCACGC
GCTGGTACCGTGGCCCGAGCTCATGCTCTCTTTCATGAGTATACACAGGCTATTGACC
TCTGGTCTGTGGGCTGCATCTTTGGTGAGATGCTGGCCCGGCGCCAGCTCTTCCCAGGCA
AAAATATGTACACCAGCTACAGCTCATCATGATGGTGTGGTACCCCATCACACAGCCG
TGATTCAGGCTGTGGGGCTGAGAGGGTGGGGCTATATCCAGAGCTTGCCACCACGCC
AGCCTGTGCCCTGGGAGACAGTGTACCCAGGTGCCGACCGCCAGGCCCTATCACTGCTGG
GTCGCATGCTGCGTTTTGAGCCAGCGCTCGCATCTCAGCAGTGTGCCCTTCGCCACC
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TTGCCCTTTGACCGCAAGCCCTCACTCGGAGCGCATTAAAGGAGGCCATTGTGGTGAAA
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TACAGCCTGTGGCTAGTGAGCCTGGCTGTCCAGATGTTGAAATGCCAGTCCCTGGGCTC
CCAGTGGGACTGTGCCATGGAGTCTCCACCACGCCCCGCCACCATGCCCGGCCCTG
CACCTGACACCATTGATCTGACCCTGCAGCCACCTCCACCAGTCAGTGAGCCTGCCCCAC
CAAAGAAAGATGGTGCCATCTCAGACAATACTAAGGCTGCCCTTAAAGCTGCCCTGCTCA
AGTCTTTGAGGAGCCGGCTCAGAGATGGCCCCAGCGCACCCCTGGAGGCTCCTGAGCCTC
GGAAGCCGGTGACAGCCAGGAGCGCCAGCGGGAGCGGGAGGAGAAGCGGCGGAGCGGC
AAGAACGAGCCAAGGAGCGGGAGAAACGGCGCAGGAGCGGGAGCGAAAGGAACGGGGG
CTGGGGCCTCTGGGGGCCCTCCACTGACCCCTTGGCTGGACTAGTGCTCAGTGACAATG
ACAGAAGCCTGTTGGAACGCTGGACTCGAATGGCCCGGCCGACGCCCCAGCCCTCACCT
CTGTGCCGGCCCTGCCCCAGCGCAACGCCAACCCCAACCCAGTCCAACCTACCAGTC
CTCCTCCTGGCCCTGTAGCCCAGCCACTGGCCCGCAACCACAATCTGCGGGCTCTACCT
CTGGCCCTGTACCCAGCCTGCCTGCCACCCCTGGCCCTGCACCCACCCACTGGCC
CTCCTGGGCCCATCCCTGTCCCGCGCCACCCAGATTGCCACCTCCACCAGCCTCCTGG
CTGCCCAGTCACTTGTGCCACCCCTGGGCTGCCTGGCTCCAGCACCCACAGGAGTTTTC
CTTACTTCCCACCTGGCCTGCCGCCCCAGACGCGGGGGAGCCCTCAGTCTTCCATGT
CAGAGTACCTGATGTCAACCTTGTGACCCAGCAGCTATCTAAGTACAGGTGGAGGACC
CCCTGCCCCCTGTGTTCTCAGGCACACCAAAGGGCAGTGGGGCTGGCTACGGTGTGGCT
TTGACCTGGAGGAATTCTTAAACAGTCTTTCGACATGGGCGTGGCTGATGGGCCACAGG
ATGGCCAGGCAGATTACGCTCTCTCAGCCTCCCTGCTTGTGACTGGCTCGAAGGCC
ATGGCATGAACCCCTGCCGATATTGAGTCCCTGCAGCGTGAGATCCAGATGGACTCCCAA
TGCTGCTGGCTGACCTGCCTGACCTCCAGGACCCCTGAGGCCCCAGCCTGTGCCTTGT
GCCACAGTAGACCTAGTCCAGGATCCATGGGAGCATTCTCAAAGGCTTTAGCCCTGGAC
CCAGCAGGTGAGGCTCGGCTTGATTATTCTGCAGTTTCTCAGACCCACCTTTCAGC
CTTAAGCAGCCACCTGAGCCACCACCGAGCCATGGCAGGATCGGGAGACCCCACTCCCC
CTGAACAATCCTTTTCAGTATTATATTTTATTATTATTATGTTATTATTACACTGTCTT
TTTGCCATCAAAATGAGGCTGTGAAATACAAGGTTCCCTTCTGCAAAAAAAAAAAAAAAA
AAA
    
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Restriction Sites:

Please inquire

ACCN:	NM_139033
Insert Size:	2900 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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.
RefSeq:	NM_139033.1 , NP_620602.1
RefSeq Size:	3113 bp
RefSeq ORF:	2451 bp
Locus ID:	5598
UniProt ID:	Q13164
Cytogenetics:	17p11.2
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Gap junction, GnRH signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway

Gene Summary:

The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is specifically activated by mitogen-activated protein kinase kinase 5 (MAP2K5/MEK5). It is involved in the downstream signaling processes of various receptor molecules including receptor type kinases, and G protein-coupled receptors. In response to extracellular signals, this kinase translocates to cell nucleus, where it regulates gene expression by phosphorylating, and activating different transcription factors. Four alternatively spliced transcript variants of this gene encoding two distinct isoforms have been reported. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) is also known as BMK1 alpha. It encodes a longer isoform (1), as compared to variant 2. Variants 1, 3 and 4 encode the same isoform.