

## Product datasheet for **SC320483**

### ERK5 (MAPK7) (NM\_139034) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ERK5 (MAPK7) (NM_139034) 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:** >OriGene sequence for NM\_139034.1  
 CTGCGGCCTTTGAACAAACACCATTGCCCAGCCTCTGAAGGAGGAAGACGGCGAGGACGG  
 CTCTGCGGAGCCCCCGGGCCCGTGAAGGCCGAACCCGCCACACCGCTGCCTCTGTAGC  
 GGCCAAGAACCTGGCCCTGCTTAAAGCCCGCTCCTTCGATGTGACCTTTGACGTGGGCGA  
 CGAGTACGAGATCATCGAGACCATAGGCAACGGGGCCTATGGAGTGGTGTCTCCGCCCG  
 CCGCCCGCTCACCGGCCAGCAGGTGGCCATCAAGAAGATCCCTAATGCTTTCGATGTGGT  
 GACCAATGCCAAGCGGACCCTCAGGGAGCTGAAGATCCTCAAGCACTTTAAACACGACAA  
 CATCATCGCCATCAAGGACATCCTGAGGCCACCGTGCCCTATGGCGAATTCAAATCTGT  
 CTACGTGGTCTTGACCTGATGGAAGGACCTGCACCAGATCATCCACTCCTCACAGCC  
 CCTCACACTGGAACACGTGCGCTACTTCTGTACCAACTGCTGCGGGGCCTGAAGTACAT  
 GCACTCGGCTCAGGTATCCACCGTACCTGAAGCCCTCAAACCTATTGGTGAATGAGAA  
 CTGTGAGCTCAAGATTGGTGACTTTGGTATGGCTCGTGGCCTGTGCACCTCGCCCGTGA  
 ACATCAGTACTTCATGACTGAGTATGTGGCCACGCGCTGGTACCGTGCGCCCGAGCTCAT  
 GCTCTCTTTGCATGAGTATACACAGGCTATTGACCTCTGGTCTGTGGGCTGCATCTTTGG  
 TGAGATGTGGCCCGGCCAGCTCTTCCAGGCAAAAATATGTACACCAGCTACAGCT  
 CATCATGATGGTCTGGGTACCCATCACACGCGTGATTACAGGCTGTGGGGGCTGAGAG  
 GGTGCGGGCCTATATCCAGAGCTTGCCACCACGCCAGCCTGTGCCCTGGGAGACAGTGTA  
 CCCAGGTGCCAGCCAGGCCCTATCACTGCTGGGTGCGATGCTGCGTTTTGAGCCAG  
 CGCTCGCATCTCAGCAGCTGCTGCCCTTCGCCACCCTTCTGGCCAAGTACCATGATCC  
 TGATGATGAGCCTGACTGTGCCCGCCCTTGGCTTTGCTTTGACCGCGAAGCCCTCAC  
 TCGGGAGCGCATTAAAGAGGCCATTGTGGCTGAAATTGAGGACTTCCATGCAAGGCGTGA  
 GGGCATCCGCCAACAGATCCGCTTCCAGCCTTCTACAGCCTGTGGCTAGTGAGCCTGG  
 CTGTCCAGATGTTGAAATGCCAGTCCCTGGGCTCCCAGTGGGGACTGTGCCATGGAGT  
 TCCACCACGAGCCCGCCACCATGCCCGGCCCTGCACCTGACACCATTGATCTGACCCT  
 GCAGCCACCTCCACAGTCAGTGAAGCCTGCCCCACAAAGAAAGATGGTGCCATCTCAGA  
 CAATACTAAGGCTGCCCTTAAAGCTGCCCTGCTCAAGTCTTTGAGGAGCCGGCTCAGAGA  
 TGGCCCCAGCGCACCCCTGGAGGCTCCTGAGCCTCGGAAGCCGGTACAGCCAGGAGCG  
 CCAGCGGGAGCGGGAGGAGAAGCGGGGAGGCGCAAGAACGAGCCAAGGAGCGGGAGAA  
 ACGGGCGCAGGAGCGGGAGCGAAAGGAACGGGGGCTGGGGCCTCTGGGGGCCCCCACC  
 TGACCCCTTGGCTGGACTAGTGCTCAGTGACAATGACAGAAGCCTGTTGGAACGCTGGAC  
 TCGAATGGCCCGCCCGCAGCCACGCCCTCACCTCTGTGCCGGCCCTGCCACAGGCC  
 AACGCCAACCCCAACCCAGTCCAACCTACCAGTCTCCTCTGACCCTGTAGCCAGCC  
 CACTGGCCCGCAACCACAATCTGCGGGCTCTACCTCTGGCCCTGTACCCAGCCTGCCTG  
 CCCACCCCTGGCCCTGCACCCACCCACTGGCCCTCCTGGGCCATCCCTGTCCCCCGC  
 GCCACCCAGATTGCCACCTCCACAGCCTCCTGGCTGCCAGTCACTTGTGCCACCCCC  
 TGGGCTGCCTGGCTCCAGCACCCAGGAGTTTTGCCTTACTTCCACCTGGCCTGCCGCC  
 CCCAGACGCCGGGGAGCCCTCAGTCTCCATGTCAGAGTCACTGATGTAACCTTGT  
 GACCCAGCAGCTATCTAAGTCACAGGTGGAGGACCCCTGCCCTGTGTTCTCAGGCAC  
 ACCAAAGGGCAGTGGGGCTGGCTACGGTGTGGCTTTGACCTGGAGGAATTCTTAAACCA  
 GTCTTTCGACATGGGCGTGGCTGATGGGCCACAGGATGGCCAGGCAGATTACAGCCTCTCT  
 CTCAGCCTCCCTGCTTGCTGACTGGCTCGAAGGCCATGGCATGAACCTGCCGATATTGA  
 GTCCTGCAGCGTGAGATCCAGATGGACTCCCCAATGCTGCTGGCTGACCTGCCTGACCT  
 CCAGGACCCCTGAGGCCCCAGCCTGTGCCTTGTGCCACAGTAGACCTAGTTCCAGGAT  
 CCATGGGAGCATTCTCAAAGGCTTTAGCCCTGGACCCAGCAGGTGAGGCTCGGCTGGAT  
 TATTCTGCAGGTTCTCAGACCCACCTTTCAGCCTTAAAGCAGCCACCTGAGCCACCAC  
 CGAGCCATGGCAGGATCGGGAGACCCCACTCCCCTGAACAATCCTTTTCAGTATTATA  
 TTTTATTATTATTATGTTATTATTACTGTCTTTTGGCCATCAAATGAGGCCTGTGA  
 AATACAAGGTTCCCTTCTGCACCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_139034

<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>OTI Annotation:</b>	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.
<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>	<u><a href="#">NM_139034.1</a></u> , <u><a href="#">NP_620603.1</a></u>
<b>RefSeq Size:</b>	2813 bp
<b>RefSeq ORF:</b>	2451 bp
<b>Locus ID:</b>	5598
<b>UniProt ID:</b>	<u><a href="#">Q13164</a></u>
<b>Cytogenetics:</b>	17p11.2
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Gap junction, GnRH signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (4) is also known as BMK1 beta. It differs in the 5' UTR, as compared to variant 1. Variants 1, 3 and 4 encode the same isoform.</p>