

## Product datasheet for **SC127852**

### ERK5 (MAPK7) (NM\_139032) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ERK5 (MAPK7) (NM_139032) Human Untagged Clone
Tag:	Tag Free
Symbol:	ERK5
Synonyms:	BMK1; ERK4; ERK5; PRKM7
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC127852 sequence for NM\_139032 edited (data generated by NextGen Sequencing)

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ATGGAAAGCGACCTGCACCAGATCATCCACTCCTCACAGCCCCTCACACTGGAACACGTG
CGCTACTTCTGTACCAACTGCTGCGGGGCTGAAGTACATGCACTCGGCTCAGGTATC
CACCGTGACCTGAAGCCCTCCAACCTATTGGTGAATGAGAAGTGTGAGCTCAAGATTGGT
GACTTTGGTATGGCTCGTGGCCTGTGCACCTCGCCCGCTGAACATCAGTACTTCATGACT
GAGTATGTGGCCACGCGCTGGTACCGTGGCCCGAGCTCATGCTCTCTTTGCATGAGTAT
ACACAGGCTATTGACCTCTGGTCTGTGGGCTGCATCTTTGGTGAATGCTGGCCCGGCGC
CAGCTCTTCCCAGGCAAAAAGTATGTACACCAGCTACAGCTCATCATGATGGTGTGGGT
ACCCCATCACCAGCCGTATTGAGGCTGTGGGGCTGAGAGGGTGCGGGCTATATCCAG
AGCTTGCCACCACGCCAGCCTGTGCCCTGGGAGACAGTGTACCCAGGTGCCGACCCGAG
GCCCTATCACTGCTGGTGCATGCTGCGTTTTGAGCCAGCGCTCGCATCTCAGCAGCT
GCTGCCCTTCGCCACCCTTCTGGCCAAGTACCATGATCCTGATGATGAGCCTGACTGT
GCCCGCCCTTTGACTTTGCCTTTGACCGCAAGCCCTCACTCGGGAGCGCATTAAGGAG
GCCATTGTGGCTGAAATTGAGGACTTCCATGCAAGGCGTGAGGGCATCCGCCAACAGATC
CGCTTCCAGCCTTCTCTACAGCCTGTGGCTAGTAGCCTGGCTGTCCAGATGTTGAAATG
CCCAGTCCCTGGGCTCCCAGTGGGGACTGTGCCATGGAGTCTCCACCACCAGCCCGCCA
CCATGCCCCGGCCCTGCACCTGACACCATTGATCTGACCTGCAGCCACCTCCACCAGTC
AGTGAGCCTGCCCCACCAAGAAAGATGGTGCCATCTCAGACAATACTAAGGCTGCCCTT
AAAGCTGCCCTGCTCAAGTCTTTGAGGAGCCGGCTCAGAGATGGCCCCAGCGCACCCCTG
GAGGCTCCTGAGCCTCGGAAGCCGGTGACAGCCAGGAGCGCCAGCGGGAGCGGGAGGAG
AAGCGCGGAGGGCGCAAGAACGAGCCAAGGAGCGGGAGAAACGGCGGCAGGAGCGGGAG
CGAAAGGAACGGGGGCTGGGGCTCTGGGGCCCTCCACTGACCCCTTGCTGGACTA
GTGCTCAGTGACAATGACAGAAGCCTGTTGGAACGCTGGACTCGAATGGCCCGGCCCGCA
GCCCCAGCCCTCACCTCTGTGCCGGCCCTGCCCCAGCGCCAACGCCAACCCCAACCCCA
GTCCAACCTACCAGTCTCTCTGCCCCTGTAGCCAGCCACTGGCCCGCAACCACAA
TCTGCGGGCTCTACCTCTGGCCCTGTACCCAGCCTGCCTGCCACCCCTGGCCCTGCA
CCCCACCCACTGGCCCTCCTGGGCCATCCCTGTCCCCGCGCCACCCAGATTGCCACC
TCCACCAGCCTCCTGGCTGCCAGTCACCTGTGCCACCCCTGGGCTGCCTGGCTCCAGC
ACCCAGGAGTTTTGCCTTACTTCCACCTGGCCTGCCGCCCCAGACGCCGGGGAGCC
CCTCAGTCTTCCATGTCAGAGTCACTGATGTCAACCTTGTGACCCAGCAGCTATCTAAG
TCACAGGTGGAGACCCCTGCCCCCTGTGTTCTCAGGCACACCAAGGGCAGTGGGGCT
GGCTACGGTGTGGCTTTGACCTGGAGGAATTCTTAAACAGTCTTTCGACATGGGCGTG
GCTGATGGGCCACAGGATGGCCAGGCAGATTGAGCCTCTCTCAGCCTCCCTGCTTGTCT
GACTGGCTCGAAGGCCATGGCATGAACCCTGCCGATATTGAGTCCCTGCAGCGTGAGATC
CAGATGGACTCCCAATGCTGCTGGTGGCTGACCTGCCTGACCTCCAGGACCCCTGA

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Clone variation with respect to NM\_139032.2

<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_139032 unedited TACGACTCACTATAGGGCGGCCGGAATTCGGCGCGAGGCGGGCTCCGCAGAGAGAAG CAGAGGGTTGGGCGGCCCTCGGTTAACTCCGCTGCAGCCAAAGGACGGGAATCGCGG GACAGACAAACGAGCGGAGGGAAGATACCTAGAAGCCAGGAAACCGCGAGCTGCAGTCCA ACTTGGCCGGAAGCTGCGGAGAGGCTCAGCCACCGGAAGTCAGTGGAGGGTTCGGCCGGA CGCTCTAGAATCCCGGAGGACCGGGATCTCTGTGGTTGGCCGTGACGGGCACCCTTACC GGGATGACACATTCAGAGCTCCTGGGACCAAGCAAATGGCGGACACAATCCCTGGG CGGAAGGGGACTTCGGGAGCCAGTAGCCAAGCTACGTGGTCCTGGACCTGATGGAAGCG ACCTGCACCAGATCATCCACTCCTCACAGCCCCTCACACTGGAACACGTGCGCTACTTCC TGTACCAACTGCTGCGGGGCTGAAGTACATGCACTCGGCTCAGGTCATCCACCGTGACC TGAAGCCCTCAAACCTATTGGTGAATGAGAAGTGTGAGCTCAAGATTGGTGACTTTGGTA TGGCTCGTGGCCTGTGCACCTCGCCGCTGAACATCAGTACTTCATGACTGAGTATGTGG CCACGCGTGGTACCGTGCGCCGAGCTCATGCTCTTTGCATGAGTATACACAGGCTA TTGACCTCTGGTCTGG
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_139032
<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_139032.1</a> , <a href="#">NP_620601.1</a>
<b>RefSeq Size:</b>	2737 bp
<b>RefSeq ORF:</b>	2034 bp
<b>Locus ID:</b>	5598
<b>UniProt ID:</b>	<a href="#">Q13164</a>
<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

**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 (2) lacks a segment in the 5' region, which includes the translation start codon, when compared to variant 1. The translation of this transcript begins at a downstream in-frame start codon, and thus results in an N-terminal truncated isoform (2), as compared to isoform 1.