

Product datasheet for **SC303240**

ERK1 (MAPK3) (NM_002746) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ERK1 (MAPK3) (NM_002746) Human Untagged Clone
Tag:	Tag Free
Symbol:	ERK1
Synonyms:	ERK-1; ERK1; ERT2; HS44KDAP; HUMKER1A; p44-ERK1; p44-MAPK; P44ERK1; P44MAPK; PRKM3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_002746 edited
CGGCTCAGATGGCGGCGGCGGCTCAGGGGGCGGGGAGCCCCGTAGAACC
AGGGGGTCCGCCCCGGGGTCCCGGGGAGGTGGAGATGGTGAAGGGCAGCCGTTTCGACG
TGGCCCCGCGCTACACGAGTTGCAAGTACATCGGCGAGGGCGCGTACGGCATGGTCAAGT
CGGCCTATGACCAGTGCAGCAAGACTCGCGTGGCCATCAAGAAGATCAGCCCCCTCGAAC
ATCAGACCTACTGCCAGCGCAGCTCCGGGAGATCCAGATCCTGCTGCGCTTCCGCCATG
AGAATGTCATCGGCATCCGAGACATTCTGCGGGCGTCCACCCTGGAAGCCATGAGAGATG
TCTACATTGTGCAGGACCTGATGGAGACTGACCTGTACAAGTTGCTGAAAAGCCAGCAGC
TGAGCAATGACCATATCTGCTACTTCTCTACCAGATCCTGCGGGGCTCAAGTACATCC
ACTCCGCAACGTGCTCCACCGAGATCTAAAGCCCTCAAACCTGCTCATCAACACCACCT
GCGACCTTAAGATTTGTGATTTGCGCCTGGCCCGATTGCGGATCCTGAGCATGACCACA
CCGGCTTCTGACGGAGTATGTGGCTACGCGCTGGTACCGGGCCCGAGAGATCATGCTGA
ACTCCAAGGGCTATACCAAGTCCATCGACATCTGGTCTGTGGGCTGCATTCTGGCTGAGA
TGCTCTCTAACCGGCCATCTTCCCTGGCAAGCACTACCTGGATCAGCTCAACCACATTC
TGGGCATCCTGGGCTCCCATCCAGGAGGACCTGAATTGTATCATCAACATGAAGGCC
GAACTACCTACAGTCTCTGCCCTCAAAGACCAAGGTGGCTTGGGCAAGCTTTTCCCA
AGTCAGACTCAAAGCCCTTGACCTGCTGGACCGGATGTTAACCTTTAACCCCAATAAAC
GGATCACAGTGGAGGAAGCGCTGGCTCACCCCTACCTGGAGCAGTACTATGACCCGACGG
ATGAGCCAGTGGCCGAGGAGCCCTTACCTTCGCGATGGAGCTGGATGACCTACCTAAGG
AGCGGCTGAAGGAGCTCATCTTCCAGGAGACAGCAGCTTCCAGCCCGAGTGTGGAGG
CCCCCTAGCCCAGACAGACATCTCTGCACCCTGGGGCC



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_002746 unedited</p> <pre>GATTTGTATACGACTGACTATAGGGCGGCCGGAATTCGGCACGAGGCGGCTCAGATGGC GGCGGGCGCGGCTCAGGGGGCGGGGGCGGGGAGCCCCGTAGAACCAGGGGGTTCGGCC GGGGTCCCGGGGAGGTGGAGATGGTGAAGGGGCAGCCGTTTCGACGTGGGCCCGCGCTA CACGCAGTTGCAGTACATCGGCGAGGGCGCGTACGGCATGGTCAGCTCGGCCTATGACCA CGTGCGCAAGACTCGCGTGGCCATCAAGAAGATCAGCCCCCTCGAACATCAGACCTACTG CCAGCGCACGCTCCGGGAGATCCAGATCCTGCTGCGCTTCGCCATGAGAATGTCTATCGG CATCCGAGACATTCTGCGGGCGTCCACCCTGGAAGCCATGAGAGATGTCTACATTGTGCA GGACCTGATGGAGACTGACCTGTACAAGTTGCTGAAAAGCCAGCAGCTGAGCAATGACCA TATCTGCTACTTCTCTACCAGATCCTGCGGGGCTCAAGTACATCCACTCCGCCAACGT GCTCCACCAGATCTAAAGCCCTCCACCTGCTCATCAACACCACCTGCGACCTTAAGAA TTGTGATTTCCGCTGCCGGTATGCCGATCCTGAGCATGACCACACCGGCTTCTGACG GAGTATGTGGCTACGCGCTGTACCGGGCCCCAGAAATATGCCGAACCTCAGGGCTATAC CAAGTCATCGACTCTGTCCGTGGCTCGCTTCTGGTGANAGCTTTTACCGCCCATCTCTG GAGGCCTTACTGTTACTAACCATTGGCATCCTGGGTCCATCCGGAGGCTGGATGGTCT AATTGAGCCGAAT</pre>
3' Read Nucleotide Sequence:	<p>>Forward primer walk for NM_002746 unedited</p> <pre>GCTCATCTCCAGAGACAGCAGCTTCCAGCCGGAGTGNTAGAGGCCCCCTAGCCGAGA CAGACATCTGACCCTGGGGCTGGACCTGCCTCTGCCTGCCCTCTCCCGCCAGAC TGTTAGAAAATGGACACTGTGCCAGCCCGGACCTTGGCAGCCAGGCCGGGTGGAGCA TGGGCTGGCCACCTCTCTCTTTGCTGAGGCCTCCAGCTTCAGGCAGGCCAAGGCCTTC TCCTCCCACCCGCCCTCCCACGGGGCTCGGGACCTCAGTGGCCCCAGTTCAATCTC CGCTGTCTGTCTGCGCCCTTACCTTCCCAGGTCCTCAGTCTCTGGCAGTTCTGGAAT GGAAGGGTTCTGGCTGCCCAACCTGCTGAAGGGCAAAGGTGGAGGGTGGGGGGCGCTGA GTAGGGACTCAGGGCCATGCCTGCCCCCTCATCTCATTCAAACCCACCCCTAGTTTCCC TGAAGGAACATTCCTTAGTCTCAAGGGCTAGCATCCCTGAGGAGCCAGGCCGGCCGAAT CCCCTCCCTGTCCAACTGTGACCTTTCGTGGCCTTGGTGTGCTTCTGTGTGTGGTGAGC CAAAATGGACCTGGGGGCGTGNAAAGCCGGCGCCCTGCAACCCTCCTGACCCGTCTA ATATATAATTATAGAGATGTGTCTATGAAAAAAAAAAAAAAAAAACTTCGACTCTAGATTG CGCCCGGGGCATACTTGTCTCTGAACAGTATCGGC</pre>
Restriction Sites:	Please inquire
ACCN:	NM_002746
Insert Size:	2200 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:	There is 1 nucleotide difference between the OriGene clone and the NCBI reference ORF. OriGene considers this to be a polymorphism and to reflect the natural differences between individuals. These result in the substitution of 1 amino acid.
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_002746.1 , NP_002737.1
RefSeq Size:	1866 bp
RefSeq ORF:	1140 bp
Locus ID:	5595
UniProt ID:	P27361
Cytogenetics:	16p11.2
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways:	Acute myeloid leukemia, Adherens junction, Alzheimer's disease, Axon guidance, B cell receptor signaling pathway, Bladder cancer, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Dorso-ventral axis formation, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Melanoma, mTOR signaling pathway, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Non-small cell lung cancer, Oocyte meiosis, Pancreatic cancer, Pathways in cancer, Prion diseases, Progesterone-mediated oocyte maturation, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, TGF-beta signaling pathway, Thyroid cancer, Toll-like receptor signaling pathway, Type II diabetes mellitus, Vascular smooth muscle contraction, VEGF signaling pathway
Gene Summary:	<p>The protein encoded by this gene is a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act in a signaling cascade that regulates various cellular processes such as proliferation, differentiation, and cell cycle progression in response to a variety of extracellular signals. This kinase is activated by upstream kinases, resulting in its translocation to the nucleus where it phosphorylates nuclear targets. Alternatively spliced transcript variants encoding different protein isoforms have been described. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1) represents the most common transcript and encodes isoform 1.</p>