

## Product datasheet for **RC212228**

### **ERK5 (MAPK7) (NM\_139033) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ERK5 (MAPK7) (NM_139033) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ERK5
Synonyms:	BMK1; ERK4; ERK5; PRKM7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide  
Sequence:**

>RC212228 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCCGAGCCTCTGAAGGAGGAAGACGGCGAGGACGGCTCTGCGGAGCCCCCGGGCCCGTGAAGGCCG  
 AACCCGCCACACCGCTGCCTCTGTAGCGGCAAGAACCCTGGCCCTGCTTAAAGCCCGCTCTTCGATGT  
 GACCTTTGACGTGGGCGACGAGTACGAGATCATCGAGACCATAGGCAACGGGGCCTATGGAGTGGTGTC  
 TCCGCCCGCCCGCCTCACCGGCCAGCAGGTGGCCATCAAGAAGATCCCTAATGCTTTCGATGTGGTGA  
 CCAATGCCAAGCGGACCCTCAGGAGCTGAAGATCCTCAAGCACTTTAAACACGACAACATCATGCCAT  
 CAAGGACATCCTGAGGCCACCGTGCCCTATGGCGAATCAAATCTGTCTACGTGGTCTGGACCTGATG  
 GAAAGCGACCTGCACCAGATCATCCACTCCTCACAGCCCCTCACACTGGAACACGTGCGCTACTTCTGT  
 ACCAACTGCTGCGGGCCTGAAGTACATGCACTCGGCTCAGGTCCACCGTGACCTGAAGCCCTCCAA  
 CCTATTGGTGAATGAGAACTGTGAGCTCAAGATTGGTGACTTTGGTATGGCTCGTGGCCTGTGCACCTCG  
 CCCGCTGAACATCAGTACTTCATGACTGAGTATGTGGCCACGCGCTGGTACCGTGCGCCCGAGCTCATGC  
 TCTCTTTGCATGAGTATACACAGGCTATTGACCTCTGGTCTGTGGGCTGCATCTTTGGTGAGATGCTGGC  
 CCGGCGCCAGCTCTCCAGGCAAAAATATGTACACCAGCTACAGCTCATCATGATGGTGTGGTACC  
 CCATCACCAGCCGTGATTCAGGCTGTGGGGCTGAGAGGGTGGGGCCTATATCCAGAGCTTGCCACCAC  
 GCCAGCCTGTGCCCTGGGAGACAGTGTACCCAGGTGCCGACCGCCAGGCCCTATCACTGCTGGGTGCGAT  
 GCTGCGTTTTGAGCCAGCGCTCGCATCTCAGCAGCTGCTGCCCTTCGCCACCCTTCTCTGGCCAAGTAC  
 CATGATCCTGATGATGAGCCTGACTGTGCCCGCCCTTTGACTTTGCCTTTGACCGGAAGCCCTCACTC  
 GGGAGCGCATTAAAGGAGCCATTGTGGCTGAAATTGAGGACTTCCATGCAAGCGCTGAGGGCATCCGCCA  
 ACAGATCCGCTTCCAGCCTTCTCTACAGCCTGTGGCTAGTGAGCCTGGCTGTCCAGATGTTGAAATGCC  
 AGTCCCTGGGCTCCAGTGGGACTGTGCCATGGAGTCTCCACCACCGCCCGCCACCATGCCCGGCC  
 CTGCACCTGACACCATTGATCTGACCCTGCAGCCACCTCCACCAGTCAGTGAGCCTGCCCCACAAAGAA  
 AGATGGTGCCATCTCAGACAATACTAAGGCTGCCCTTAAAGTGCCTGCTCAAGTCTTTGAGGAGCCGG  
 CTCAGAGATGGCCCCAGCGCACCCCTGGAGGCTCCTGAGCCTCGGAAGCCGGTGACAGCCCAGGAGCGCC  
 AGCGGGAGCGGGAGGAGAAGCGGCGGAGGCGGCAAGAACGAGCCAAGGAGCGGGAGAAACGGCGGCAGGA  
 GCGGGAGCGAAAGGAACGGGGGCTGGGCCTCTGGGGGCCCTCCACTGACCCCTTGCTGGACTAGTG  
 CTCAGTGACAATGACAGAAGCCTGTTGGAACGCTGGACTCGAATGGCCCGCCCGCAGCCCCAGCCCTCA  
 CCTCTGTGCCGGCCCTGCCCCAGCGCCAACGCCAACCCCAACCCAGTCCAACCTACCAGTCTCTCTCC  
 TGGCCCTGTAGCCAGCCCACTGGCCCGCAACCACAATCTGCGGGCTCTACCTCTGGCCCTGTACCCAG  
 CCTGCCTGCCACCCCTGGCCCTGCACCCACCCCACTGGCCCTCCTGGGCCCATCCCTGTCCCGCGC  
 CACCCAGATTGCCACCTCCACCAGCCTCCTGGCTGCCAGTCACTTGTGCCACCCCTGGGCTGCCTGG  
 CTCCAGCACCCAGGAGTTTTGCCTTACTTCCACCTGGCCTGCCGCCCCAGACGCCGGGGAGCCCT  
 CAGTCTTCCATGTCAGAGTACCTGATGTCAACCTTGTGACCCAGCAGCTATCTAAGTACAGGTGGAGG  
 ACCCCCTGCCCTGTGTTCTCAGGCACACCAAGGGCAGTGGGGCTGGTACGGTGTGGCTTTGACCT  
 GGAGGAATCTTAAACCAGTCTTTCGACATGGGCGTGGCTGATGGGCCACAGGATGGCCAGGCAGATTCA  
 GCCTCTCTCAGCCTCCCTGCTTGTGACTGGCTCGAAGGCCATGGCATGAACCTGCCGATATTGAGT  
 CCCTGCAGCGTGAGATCCAGATGGACTCCCAATGCTGTGGCTGACCTGCCTGACCTCCAGGACCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC212228 protein sequence  
Red=Cloning site Green=Tags(s)

MAEPLKEEDGEDGSAEPPGPVKAEP AHTAASVAAKNLALLKARSFDVTFDVGDEYEIIETIGNGAYGVVS  
SARRRLTGQQVAIKKIPNAFDVVTNAKRTLRELKILKHFKHDNIIA IKDILRPTVPYGEFKSVYVLDLM  
ESDLHQI IHSSQPLTLEHVRYFLYQLLRGLKYMHS AQVIHRDLKPSNLLVNENCELKIGDFGMARGLCTS  
PAEHQYFMTEYVATRWRAP ELM LSLHEYTQAIDLWSVGCIFGEM LARRQLFPGKNYVHQLQLIMMVLGT  
PSPAVIQAVGAERV RAYIQSLPPRQPVPWETVYPGADRQAL SLLGRMLRFEPSARISAAAALRHPFLAKY  
HDPDDEPDCAPPFDFAFDREAL TRERIKEAIVAEIEDFHARREGIRQQIRFQPSLQPVASEPGCPDVEMP  
SPWAPSGDCAMESPPPAPPPCPGPAPDTIDLTLQPPPPVSEPAPPKKGAI SDNTKAALKAALLKSLRSR  
LRDGPSAPLEAPEPRKPVTAQERQREEREKRRRRQERAKEREKRRQERERKERGAGASGGPSTDPLAGLV  
LSDNDRSLLERWTRMARPAAPALTSVPAPAPAPTPTPTPVQPTSPPPGPVAQPTGPQPQSAGSTSGPV PQ  
PACPPPGPAPHPTGPPGP IPVPAPPQIATSTSLAAQSLVPPPGLPGSSTPGVLPYFPPGLPPPDAGGAP  
QSSMSESPDVNLVTQQLSKSQVEDPLPPVFSGTPKGSAGYGVGFDLEEF LNQSFDMGVADGPDGQADS  
ASLSASLLADWLEGHGMNPADIESLQREIQMDS PMLLADLPDLQDP

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

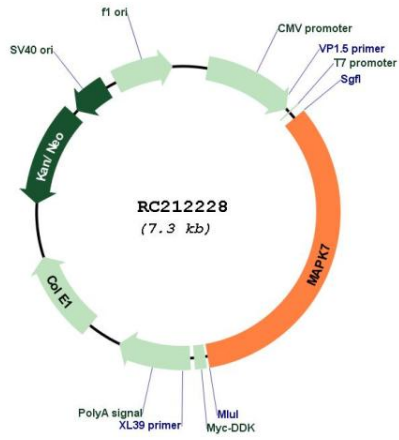
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6230\\_h06.zip](https://cdn.origene.com/chromatograms/mk6230_h06.zip)

**Restriction Sites:** Sgfl-Mlul



<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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_139033.2</a> , <a href="#">NP_620602.2</a>
<b>RefSeq Size:</b>	3183 bp
<b>RefSeq ORF:</b>	2451 bp
<b>Locus ID:</b>	5598
<b>UniProt ID:</b>	<a href="#">Q13164</a>
<b>Cytogenetics:</b>	17p11.2
<b>Domains:</b>	pkinase, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Gap junction, GnRH signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway
<b>MW:</b>	88.4 kDa
<b>Gene Summary:</b>	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]

Product images:



Circular map for RC212228