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Product datasheet for RC200655

ERK5 (MAPK7) (NM_139032) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
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)

ORF Nucleotide Sequence:

>RC200655 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAAGCGACCTGCACCAGATCATCCACTCCTCACAGCCCCTCACACTGGAACACGTGCGCTACTTCC
TGTACCAACTGCTGCGGGGCCTGAAGTACATGCACTCGGCTCAGGTCATCCACCGTGACCTGAAGCCCTC
CAACCTATTGGTGAATGAGAACTGTGAGCTCAAGATTGGTGACTTTGGTATGGCTCGTGGCCTGTGCACC
TCGCCCGCTGAACATCAGTACTTCATGACTGAGTATGTGGCCACGCGCTGGTACCGTGCGCCCGAGCTCA
TGCTCTCTTTGCATGAGTATACACAGGCTATTGACCTCTGGTCTGTGGGCTGCATCTTTGGTGAGATGCT
GGCCCGGCGCCAGCTCTTCCCAGGCAAAAACTATGTACACCAGCTACAGCTCATCATGATGGTGCTGGGT
ACCCCATCACCAGCCGTGATTCAGGCTGTGGGGGCTGAGAGGGTGCGGGCCTATATCCAGAGCTTGCCAC
CACGCCAGCCTGTGCCCTGGGAGACAGTGTACCCAGGTGCCGACCGCCAGGCCCTATCACTGCTGGGTCG
CATGCTGCGTTTTGAGCCCAGCGCTCGCATCTCAGCAGCTGCTGCCCTTCGCCACCCTTTCCTGGCCAAG
TACCATGATCCTGATGATGAGCCTGACTGTGCCCCGCCCTTTGACTTTGCCTTTGACCGCGAAGCCCTCA
CTCGGGAGCGCATTAAGGAGGCCATTGTGGCTGAAATTGAGGACTTCCATGCAAGGCGTGAGGGCATCCG
CCAACAGATCCGCTTCCAGCCTTCTCTACAGCCTGTGGCTAGTGAGCCTGGCTGTCCAGATGTTGAAATG
CCCAGTCCCTGGGCTCCCAGTGGGGACTGTGCCATGGAGTCTCCACCACCAGCCCCGCCACCATGCCCCG
GCCCTGCACCTGACACCATTGATCTGACCCTGCAGCCACCTCCACCAGTCAGTGAGCCTGCCCCACCAAA
GAAAGATGGTGCCATCTCAGACAATACTAAGGCTGCCCTTAAAGCTGCCCTGCTCAAGTCTTTGAGGAGC
CGGCTCAGAGATGGCCCCAGCGCACCCCTGGAGGCTCCTGAGCCTCGGAAGCCGGTGACAGCCCAGGAGC
GCCAGCGGGAGCGGGAGGAGAAGCGGCGGAGGCGGCAAGAACGAGCCAAGGAGCGGGAGAAACGGCGGCA
GGAGCGGGAGCGAAAGGAACGGGGGGCTGGGGCCTCTGGGGGCCCCTCCACTGACCCCTTGGCTGGACTA
GTGCTCAGTGACAATGACAGAAGCCTGTTGGAACGCTGGACTCGAATGGCCCGGCCCGCAGCCCCAGCCC
TCACCTCTGTGCCGGCCCCTGCCCCAGCGCCAACGCCAACCCCAACCCCAGTCCAACCTACCAGTCCTCC
TCCTGGCCCTGTAGCCCAGCCCACTGGCCCGCAACCACAATCTGCGGGCTCTACCTCTGGCCCTGTACCC
CAGCCTGCCTGCCCACCCCCTGGCCCTGCACCCCACCCCACTGGCCCTCCTGGGCCCATCCCTGTCCCCG
CGCCACCCCAGATTGCCACCTCCACCAGCCTCCTGGCTGCCCAGTCACTTGTGCCACCCCCTGGGCTGCC
TGGCTCCAGCACCCCAGGAGTTTTGCCTTACTTCCCACCTGGCCTGCCGCCCCCAGACGCCGGGGGAGCC
CCTCAGTCTTCCATGTCAGAGTCACCTGATGTCAACCTTGTGACCCAGCAGCTATCTAAGTCACAGGTGG
AGGACCCCCTGCCCCCTGTGTTCTCAGGCACACCAAAGGGCAGTGGGGCTGGCTACGGTGTTGGCTTTGA
CCTGGAGGAATTCTTAAACCAGTCTTTCGACATGGGCGTGGCTGATGGGCCACAGGATGGCCAGGCAGAT
TCAGCCTCTCTCTCAGCCTCCCTGCTTGCTGACTGGCTCGAAGGCCATGGCATGAACCCTGCCGATATTG
AGTCCCTGCAGCGTGAGATCCAGATGGACTCCCCAATGCTGCTGGCTGACCTGCCTGACCTCCAGGACCC
C

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200655 protein sequence
Red=Cloning site Green=Tags(s)

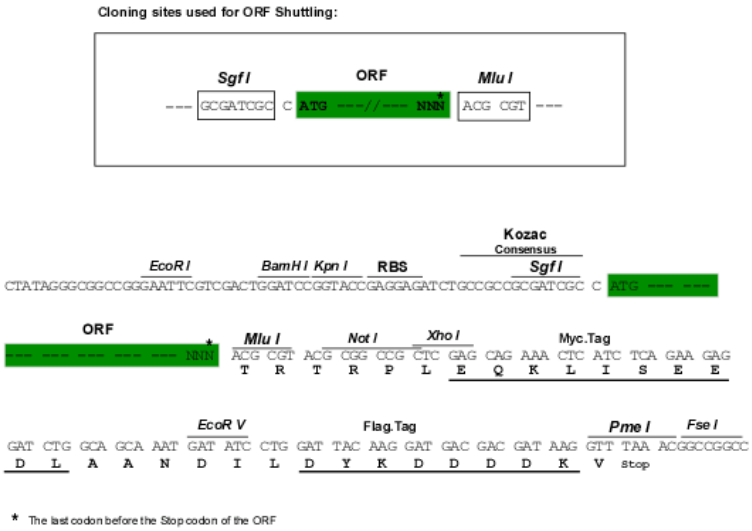
MESDLHQIIHSSQPLTLEHVRYFLYQLLRGLKYMHSAQVIHRDLKPSNLLVNENCELKIGDFGMARGLCT
SPAEHQYFMTEYVATRWYRAPELMLSLHEYTQAIDLWSVGCIFGEMLARRQLFPGKNYVHQLQLIMMVLG
TPSPAVIQAVGAERVRAYIQSLPPRQPVPWETVYPGADRQALSLLGRMLRFEPSARISAAAALRHPFLAK
YHDPDDEPDCAPPFDFAFDREALTRERIKEAIVAEIEDFHARREGIRQQIRFQPSLQPVASEPGCPDVEM
PSPWAPSGDCAMESPPPAPPPCPGPAPDTIDLTLQPPPPVSEPAPPKKDGAISDNTKAALKAALLKSLRS
RLRDGPSAPLEAPEPRKPVTAQERQREREEKRRRRQERAKEREKRRQERERKERGAGASGGPSTDPLAGL
VLSDNDRSLLERWTRMARPAAPALTSVPAPAPAPTPTPTPVQPTSPPPGPVAQPTGPQPQSAGSTSGPVP
QPACPPPGPAPHPTGPPGPIPVPAPPQIATSTSLLAAQSLVPPPGLPGSSTPGVLPYFPPGLPPPDAGGA
PQSSMSESPDVNLVTQQLSKSQVEDPLPPVFSGTPKGSGAGYGVGFDLEEFLNQSFDMGVADGPQDGQAD
SASLSASLLADWLEGHGMNPADIESLQREIQMDSPMLLADLPDLQDP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6075_d02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_139032

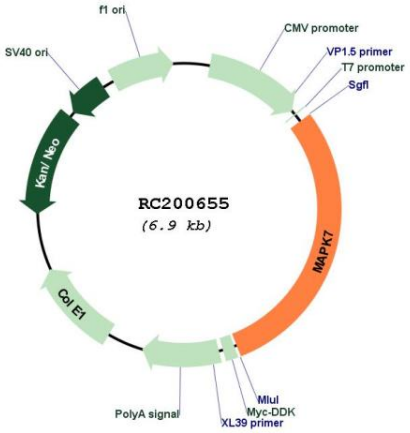
ORF Size: 2031 bp

OTI Disclaimer: 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

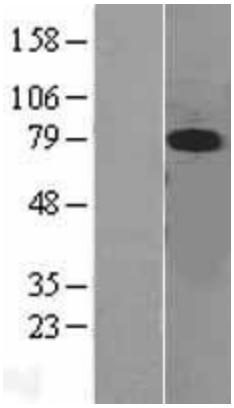
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_139032.3
RefSeq Size:	2780 bp
RefSeq ORF:	2034 bp
Locus ID:	5598
UniProt ID:	Q13164
Cytogenetics:	17p11.2
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Gap junction, GnRH signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway
MW:	73.2 kDa
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 extracelluar 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 RC200655



Western blot validation of overexpression lysate (Cat# [LY403374]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200655 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).