

## Product datasheet for **RG200655**

### **ERK5 (MAPK7) (NM\_139032) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ERK5 (MAPK7) (NM_139032) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ERK5
Synonyms:	BMK1; ERK4; ERK5; PRKM7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG200655 representing NM\_139032  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAAAGCGACCTGCACCAGATCATCCACTCCTCACAGCCCCTCACACTGGAACACGTGCGCTACTTCC  
 TGTACCAACTGCTGCGGGCCTGAAGTACATGCACTCGGCTCAGGTCATCCACCGTGACCTGAAGCCCTC  
 CAACCTATTGGTGAATGAGAAGTGTGAGCTCAAGATTGGTGACTTTGGTATGGCTCGTGGCCTGTGCACC  
 TCGCCCGTGAACATCAGTACTTCATGACTGAGTATGTGGCCACGCGCTGGTACCGTGCGCCCGAGCTCA  
 TGCTCTCTTTGCATGAGTATACACAGGCTATTGACCTCTGGTCTGTGGGCTGCATCTTTGGTGAATGCT  
 GGCCCGGCCAGCTCTCCAGGCAAAAATATGTACACCAGCTACAGCTCATCATGATGGTGTGGGT  
 ACCCCATACAGCCGTGATTACAGGCTGTGGGGCTGAGAGGGTGCAGCCATATCCAGAGCTTGCAC  
 CAGCCAGCTGTGCCCTGGGAGACAGTGTACCCAGTGCCGACCGCCAGGCCCTATCACTGCTGGTGC  
 CATGCTGGTTTTGAGCCAGCGCTCGCATCTCAGCAGTGTGCCCTTCCGACCCCTTCTGGCCAAG  
 TACCATGATCCTGATGATGAGCCTGACTGTGCCCGCCCTTTGACTTTGCCCTTGGACCGGAAGCCCTCA  
 CTCGGGAGCGCATTAAAGGAGGCCATTGTGGCTGAAATTGAGGACTTCCATGCAAGCGTGAGGGCATCCG  
 CCAACAGATCCGCTTCCAGCCTTCTCTACAGCCTGTGGCTAGTGAGCCTGGCTGTCCAGATGTTGAAATG  
 CCCAGTCCCTGGGCTCCAGTGGGGACTGTGCCATGGAGTCTCCACCACCAGCCCGCCACCATGCCCGG  
 GCCCTGCACCTGACACCATTTGATCTGACCTGCAGCCACTCCACCAGTCAGTGAGCCTGCCCCACAAA  
 GAAAGATGGTGCCATCTCAGACAATACTAAGGCTGCCCTTAAAGCTGCCCTGCTCAAGCTTTGAGGAGC  
 CGGCTCAGAGATGGCCCCAGCGCACCCCTGGAGGCTCCTGAGCCTCGGAAGCCGGTGACAGCCAGGAGC  
 GCCAGCGGAGCGGGAGGAGAAGCGGGCGGAGCGCAAGAACAGCCAAGGAGCGGAGAAACGGCGCA  
 GGAGCGGAGCGAAAGGAACGGGGGCTGGGGCTCTGGGGGCCCTCCACTGACCCCTTGCTGGACTA  
 GTGCTCAGTGACAATGACAGAAGCCTGTTGGAACGCTGGACTCGAATGGCCCGGCCCGCAGCCCCAGCCC  
 TCACCTCTGTGCCGGCCCTGCCCCAGCGCCAACGCCAACCCCAACCCAGTCCAACCTACCAGTCTCC  
 TCCTGGCCCTGTAGCCAGCCACTGGCCCGCAACCACAATCTGCGGGCTCTACCTCTGGCCCTGTACCC  
 CAGCCTGCCTGCCACCCCTGGCCCTGCACCCACCCACTGGCCCTCCTGGGCCATCCCTGTCCCG  
 CGCCACCCAGATTGCCACCTCCACCAGCCTCCTGGCTGCCAGTCACTTGTGCCACCCCTGGGCTGCC  
 TGGCTCCAGCACCCAGGAGTTTTGCCTTACTTCCCACCTGGCCTGCCGCCCCAGACGCCGGGGAGCC  
 CCTCAGTCTTCCATGTCAGAGTCACTGATGTCAACCTTGTGACCAGCAGCTATCTAAGTCACAGGTGG  
 AGGACCCCTGCCCCCTGTGTTCTCAGGCACACCAAGGGCAGTGGGGCTGGCTACGGTGTGGCTTTGA  
 CCTGGAGGAATCTTAAACCAGTCTTTCGACATGGGCGTGGCTGATGGGCCACAGGATGGCCAGGAGAT  
 TCAGCCTCTCTCAGCCTCCCTGCTTGTGACTGGCTCGAAGGCCATGGCATGAACCTGCCGATATTG  
 AGTCCCTGCAGCGTGAGATCCAGATGGACTCCCAATGCTGCTGGCTGACCTGCCTGACCTCCAGGACCC  
 C

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG200655 representing NM\_139032  
 Red=Cloning site Green=Tags(s)

```
MESDLHQIIHSSQPLTLEHVRYFLYQLLRGLKYMHTSAQVIHRDLKPSNLLVNENCLKIGDFGMARGLCT
SPAEHQYFMTEYVATRWYRAPELMLSLHEYTQAIDLWSVGCIFGEMLARRQLFPGKNYVHQLQLIMMVLG
TPSPAIVIQAVGAERVYAIQSLPPRQVPVWETVYPGADRQALSLGRMLRFEPSSARISAAAALRHPFLAK
YHDPDDEPDCAPPFDFAFDREALTRERIKEAIVAEIEDFHARREGIRQQIRFQPSLQPVASEPGCPDVEM
PSPWAPSGDCAMESPPPPAPPCGPAPDTIDLTLQPPPVSEPPPKDGAISDNTKAALKAAALLKSLRS
RLRDGSPAPLEAPEPRKPVTAQERQREEREKRRRRQERAKERERKRRQERERKERGAGASGGPSTDPPLAGL
VLSDNDRSLLERWTRMARPAAPALTSVPAPAPAPTPTPTPVQPTSPPPGPVAQPTGPQPQSAGSTSGPVP
QPACPPPGPAPHPTGPPGPVPPVAPPQIATSTSLAAQSLVPPPGLPGSSTPGVLPYFPPGLPPPAGGA
PQSSMSESPDNLVTQQLSKSQVEDPLPPVFSGTPKGGAGYGVGFDLEEF LNQSFDMGVADGPDQDQAD
SASLSASLLADWLEGHGMNPADIESLQREIQMDSMPLLADLPDLQDP
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_139032

**ORF Size:** 2031 bp

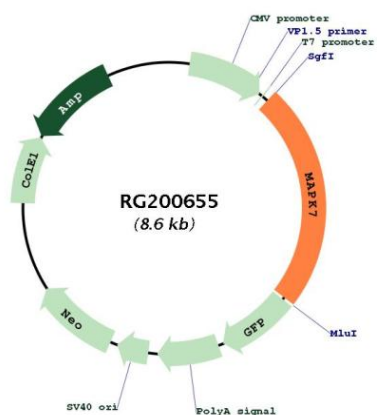
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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_139032.3</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
<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>

Product images:



Circular map for RG200655