

## Product datasheet for **RG216715**

### **PRAK (MAPKAPK5) (NM\_003668) Human Tagged ORF Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                                |
| Product Name:             | PRAK (MAPKAPK5) (NM_003668) Human Tagged ORF Clone |
| Tag:                      | TurboGFP   |
| Symbol:                   | PRAK   |
| Synonyms:                 | MAPKAP-K5; MK-5; MK5; PRAK                         |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)                            |
| E. coli Selection:        | Ampicillin (100 ug/mL)                             |



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**ORF Nucleotide Sequence:**

>RG216715 representing NM\_003668  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCGGAGGAGAGCGACATGGACAAAGCCATCAAGGAACTTCCATTTTAGAAGAATACAGTATCAATT  
 GGACTCAGAAGCTGGGAGCTGGAATTAGTGGTCCAGTTAGAGTCTGTGTAAGAAATCTACTCAAGAACG  
 GTTTGCGCTGAAAATTCTTCTTGATCGTCCAAAAGCTAGAAATGAGGTACGTCTGCACATGATGTGTGCC  
 ACACACCCAAACATAGTTCAGATTATTGAAGTGTTTGCTAACAGTGTCCAGTTTCCCATGAGTCCAGCC  
 CTAGGGCCCGACTCTTAATTGTAATGGAGATGATGGAAGGGGAGAGCTATTTACAGAAATCAGCCAGCA  
 CCGGCACCTTACAGAGAAGCAAGCCAGCCAAGTAAACAAGCAGATAGCTTTGGCTCTGCGGCACTGTAC  
 TTGTTAAACATTGCGCACAGAGACCTCAAGCCTGAAAATCTGCTTTTTAAGGATAACTCTTTGGATGCC  
 CAGTGAAGTTGTGTGACTTTGGATTTGCCAAGATTGACCAAGGTGACTTGATGACACCCAGTTCACCCC  
 TTATTATGTAGCACCCAGGTACTGGAGCGCAAAGAAGGCATCAGAAGGAGAAATCTGGCATCATACCT  
 ACCTCACCGACGCCCTACACTTACAACAAGAGCTGTGACTTGTGGTCCCTAGGGGTGATTATCTATGTGA  
 TGCTGTGCGGATACCTCCTTTTTACTCCAAACACCACAGCCGGACTATCCCAAAGGATATGCGAAGAAA  
 GATCATGACAGGCAGTTTTGAGTTCAGAGGAAGAGTGGAGTCAGATCTCAGAGATGGCCAAAGATGTT  
 GTGAGGAAGCTCCTGAAGGTCAAACCGGAGGAGAGACTCACCATCGAGGGAGTGTGGACACCCCTGGC  
 TCAATTCACCGAGGCCCTGGATAATGTCTGCCTTCTGCTCAGCTGATGATGGACAAGGCAGTGGTTGC  
 AGGAATCCAGCAGGCTCACGCGGAACAGTTGGCCAACATGAGAATCCAGGATCTGAAAGTCAGCCTCAA  
 CCCCTGCCTCAGTGAACAACCCATTCTGCGGAAGAGGAAGTACTTGGCACCAGCCAAAGGACAGTG  
 TCTATATCCAGCACCATGAGAATGGAGCCGAGGATTCGAATGTTGCCTTGAAAAAATCCGAGATGTGAT  
 TGCTCAGTGTATTCTCCCCAGGCTGGAGAGAATGAAGATGAGAAACTGAATGAAGTAATGCAGGAGGCT  
 TGGAAGTATAACCGGAATGCAAACCTAAGAGATACTCTGCAGAGCTTCAAGTGGTGGTGGAT  
 TCACAGATAAAGTAGATCGACTAAAACCTGGCAGAAATTGTGAAGCAGGTGATAGAAGAGCAAACCGCTC  
 CCACGAATCCCAA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG216715 representing NM\_003668  
 Red=Cloning site Green=Tags(s)

MSEESDMDKAIKETSILEEYSINWTQKLGAGISGPVVRVCVKKSTQERFALKILLDRPKARNEVRLHMMCA  
 THPNIVQIIIEVFANSVQFPHESSPRARLLIVMEMMEGGELFHRISQHRHFTEKQASQVTKQIALALRHCH  
 LLNIAHRDLKPENLLFKDNLDAVPKLCDFGFAKIDQGLMTPQFPTYVAPQVLEAQRHRHQKEKSGIIP  
 TSPTPTYNKSCDLWSLGVIIYVMLCGYPPFYSKHHSRTIPKDMRRKIMTGSFEFPEEESQISEMAKDV  
 VRKLLKVKPEERLTIEGLDHPWLNSTEALDNVLPQAQLMMDKAVVAGIQQAHAELANMRIQDLKVSLEK  
 PLHSVNNPILRKRKLLGTPKDSVYIHDHENGAEASNVALEKLRDVIAQCILPQAGENEDEKLNEMVQEA  
 WKYNRECKLLRDLTQSFQSWNGRGTDKVDRLKLAELVQVIEEQTTSHESQ

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_003668

**ORF Size:** 1413 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.

**RefSeq:** [NM\\_003668.4](#)

**RefSeq Size:** 2060 bp

**RefSeq ORF:** 1416 bp

**Locus ID:** 8550

**UniProt ID:** [Q8IW41](#)

**Cytogenetics:** 12q24.12-q24.13

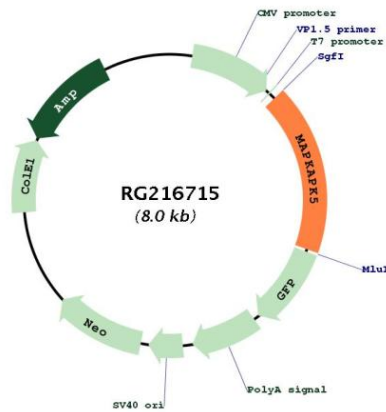
**Domains:** pkinase, TyrKc, S\_TKc

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** MAPK signaling pathway

**Gene Summary:** The protein encoded by this gene is a tumor suppressor and member of the serine/threonine kinase family. In response to cellular stress and proinflammatory cytokines, this kinase is activated through its phosphorylation by MAP kinases including MAPK1/ERK, MAPK14/p38-alpha, and MAPK11/p38-beta. The encoded protein is found in the nucleus but translocates to the cytoplasm upon phosphorylation and activation. This kinase phosphorylates heat shock protein HSP27 at its physiologically relevant sites. Two alternately spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Nov 2012]

**Product images:**



Circular map for RG216715