

## Product datasheet for **RG207496**

### EEF2K (NM\_013302) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EEF2K (NM_013302) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EEF2K
Synonyms:	CaMKIII; eEF-2K; HSU93850
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG207496 representing NM\_013302  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCAGACGAAGATCTCATCTTCCGCCTGGAAGCGTTGATGGCGGCCAGTCCCCCGAGCTGGCCGTG  
ATGGTGATTCTGATGGGGACAGCGACGATGAGGAAGGTTACTTCATCTGCCCCATCACGGATGACCCAAG  
CTCGAACCAGAATGTCAATTCGAAGTTAATAAGTACTACAGCAACCTAACAAAAAGTGAGCGGTATAGC  
TCCAGCGGGTCCCCGGCAAACCTCTTCCACTTCAAGGAAGCTGGAAGCACGCAATCCAGAAGGCCAAGC  
ACATGCCCCGACCCTGGGCTGAGTTCACCTGGAAGATATTGCCACCGAACGTGCTACTCGACACAGGTA  
CAACGCCGTACCGGGGAATGGCTGGATGATGAAGTCTGATCAAGATGGCATCTCAGCCCTTCGGCCGA  
GGAGCAATGAGGGAGTGTTCGGACGAAGAAGCTCTCCAACCTTTCATGCCAGCAGTGAAGGGAG  
CCTCCAACACGTGGCGAAGCGTACATCGAGCCGTAGACCGGGATGTGTACTTTGAGGACGTGCGTCT  
ACAGATGGAGGCCAAGCTCTGGGGGAGGAGTATAATCGGCACAAGCCCCCAAGCAGGTGGACATCATG  
CAGATGTGCATCATCGAGCTGAAGGACAGACCGGGCAAGCCCCTTCCACCTGGAGCACTACATCGAGG  
GCAAGTACATCAAGTACAACCTCAACTCTGGCTTTGTCCGCGATGACAACATCCGCCTGACGCCGAGGC  
CTTCAGCCACTTCACTTTGAGCGTTCGGCCATCAGCTGATAGTGGTGGACATCCAGGGAGTTGGGGAT  
CTCTACACTGACCACAGATCCACACGGAGACGGGCACTGACTTTGGAGACGGCAACCTAGGTGTCCGCG  
GGATGGCGCTCTTCTTACTCTCATGCCTGCAACCGATTTGCGAGAGCATGGGCTTGTCCCTTTGA  
CCTCTCGCCCCGGGAGAGGGATGCAGTGAATCAGAACCAAGCTGCTGCAATCAGCCAAGACCATTGG  
AGAGGAACAGAGGAAAAATGTGGGAGCCCCGAGTAAGGACCCTCTCTGGGAGCCGGCCACCCCTGCTCC  
GTCCCCCTTTCAGAGAACTCTGGAGACGAGAACATGAGCGACGTGACCTTCGACTCTCCCTTCTCCCC  
ATCTTCGGCCACACCACAGCCAGAAGCTAGACCACCTCCATTGGCCAGTGTTCAAGTACCTCGATAAC  
ATGGCATCCAGAGACCATGATCATCTAGACAACACCAGGGAGTCTGAGAATAGTGGGGACAGCGGATACC  
CCAGTGAGAAGCGGGGTGAGCTGGATGACCCTGAGCCCCGAGAACATGGCCACTCATACAGTAATCGGAA  
GTACGAGTCTGACGAAGACAGCCTGGGCAGCTCTGGACGGGTATGTGTAGAGAAGTGAATCTCCTCAAC  
TCCTCCCGCTCCACCTGCCGAGGGCTTCGGCCGTGGCCCTGGAAGTGCAAAGGCTTAATGCTCTGGACC  
TCGAAAAGAAAAATCGGGAAGTCCATTTTGGGGAAGGTCCATCTGGCCATGGTGCCTACCACGAGGGTGG  
GCGCTTCTGCGAGAAGGGCGAGGAGTGGGACCAGGAGTGGCTGTCTTCCACCTGGAGCACGAGCCAAC  
CTGGGCGAGCTGGAGGCCATCGTGGCCCTGGGACTCATGTACTCGCAGTTGCCTCATCACATCCTAGCCG  
ATGTCTCTCTGAAGGAGACAGAAGAGAACAAAACCAAGGATTTGATTACTTAAAGGCCGCTGAAGC  
TGGCGACAGGCAGTCCATGATCCTAGTGGCGCGAGCTTTTACTCTGGCCAGAACCTCAGCCCGGACAGG  
TGCCAAGACTGGCTAGAGGCCCTGCACTGGTACAACACTGCCCTGGAGATGACGGACTGTGATGAGGGCG  
GTGAGTACGACGGAATGCAGGACGAGCCCCGGTACATGATGCTGGCCAGGGAGGCCGAGATGCTGTTTAC  
AGGAGGCTACGGGCTGGAGAAGGACCCGACAGATCAGGGGACTTGTATACCCAGGCAGCAGAGGCAGCG  
ATGGAAGCCATGAAGGGCCGACTGGCCAACCAGTACTACCAAAGGCTGAAGAGGCTGGGCCAGATGG  
AGGAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG207496 representing NM\_013302  
Red=Cloning site Green=Tags(s)

MADEDLIFRLEGVDGGQSPRAGRGDSDGSDSDEEGYFICPITDDPSSNQNVNSKVNKYYSNLTKSERYS  
 SSGSPANSFHFKEAWKHAIQKAKHMPDPWAEFHLEDIATERATRHRYNAVTEWLDDEVLIKMASQPFGR  
 GAMRECFRTKKLSNFLHAQQWKGASNYVAKRYIEPVDRDVFEDVRLQMEAKLWGEYNRHKPKQVDIM  
 QMCIIELKDRPGKPLFHLEHYIEGKYIKYNSNSGFVRDDNIRLTPQAFSHFTFERSGHLIVVDIQGVGD  
 LYTDPQIHTEGTGDFGDGNLGVGMALFFYSHACNRICESMGLAPFDLSPREDAVNQNTKLLQSAKTIL  
 RGTEEKCGSPRVRTLSGSRPPLLRLPLENSGDNMSDVTDFSLPSSPSSATPHSQKLDHHLHWPVFSLDLN  
 MASRDHDLNHNRESENSGDSGYPSEKRGELDDPEPREHGHYSYNSRKYSEDESLGSSGRVCVEKWNLLN  
 SSRHLHPRASAVALEVQRLNALDLEKKIGKISILGKVHLAMVRYHEGGRFCEKGEEDQESAVFHLEHAAN  
 LGELEAIVGLGLMYSQPLPHHILADVSLKETEENKTKGFDYLLKAAEAGDRQSMILVARAFDSGQNLSPDR  
 CQDWLEALHWYNTALEMTDCDEGGEYDGMQDEPRYMMLAREAMELFTGGYGLEKDPQRSGLYTAQAAEA  
 MEAMKGRLANQYYQKAAEAWAQMEE

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_013302

**ORF Size:** 2175 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\\_013302.3](#), [NP\\_037434.1](#)

**RefSeq Size:** 7412 bp

**RefSeq ORF:** 2178 bp

**Locus ID:** 29904

**UniProt ID:** [O00418](#)

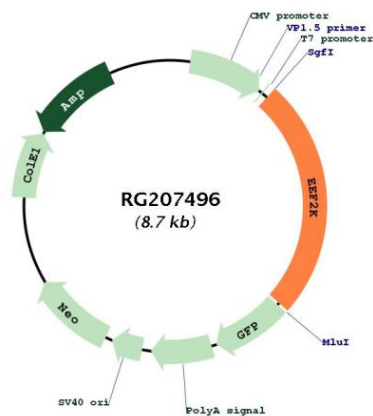
**Cytogenetics:** 16p12.2

**Domains:** Alpha\_kinase

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

**Gene Summary:** This gene encodes a highly conserved protein kinase in the calmodulin-mediated signaling pathway that links activation of cell surface receptors to cell division. This kinase is involved in the regulation of protein synthesis. It phosphorylates eukaryotic elongation factor 2 (EEF2) and thus inhibits the EEF2 function. The activity of this kinase is increased in many cancers and may be a valid target for anti-cancer treatment. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RG207496