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Product datasheet for SC323690

EEF2K (NM_013302) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EEF2K (NM_013302) Human Untagged Clone
Tag:	Tag Free
Symbol:	EEF2K
Synonyms:	CaMKIII; eEF-2K; HSU93850
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_013302, the custom clone sequence may differ by one or more nucleotides

ATGGCAGACGAAGATCTCATCTTCCGCCTGGAAGGCGTTGATGGCGGCCAGTCCCCCCGAGCTGGCCATG
ATGGTGATTCTGATGGGGACAGCGACGATGAGGAAGGTTACTTCATCTGCCCCATCACGGATGACCCAAG
CTCGAACCAGAATGTCAATTCCAAGGTTAATAAGTACTACAGCAACCTAACAAAAAGTGAGCGGTATAGC
TCCAGCGGGTCCCCGGCAAACTCCTTCCACTTCAAGGAAGCCTGGAAGCACGCAATCCAGAAGGCCAAGC
ACATGCCCGACCCCTGGGCTGAGTTCCACCTGGAAGATATTGCCACCGAACGTGCTACTCGACACAGGTA
CAACGCCGTCACCGGGGAATGGCTGGATGATGAAGTTCTGATCAAGATGGCATCTCAGCCCTTCGGCCGA
GGAGCAATGAGGGAGTGCTTCCGGACGAAGAAGCTCTCCAACTTCTTGCATGCCCAGCAGTGGAAGGGCG
CCTCCAACTACGTGGCGAAGCGCTACATCGAGCCCGTAGACCGGGATGTGTACTTTGAGGACGTGCGTCT
ACAGATGGAGGCCAAGCTCTGGGGGGAGGAGTATAATCGGCACAAGCCCCCCAAGCAGGTGGACATCATG
CAGATGTGCATCATCGAGCTGAAGGACAGACCGGGCAAGCCCCTCTTCCACCTGGAGCACTACATCGAGG
GCAAGTACATCAAGTACAACTCCAACTCTGGCTTTGTCCGCGATGACAACATCCGCCTGACGCCGCAGGC
CTTCAGCCACTTCACTTTTGAGCGTTCCGGCCATCAGCTGATAGTGGTGGACATCCAGGGAGTTGGGGAT
CTCTACACTGACCCACAGATCCACACGGAGACGGGCACTGACTTTGGAGACGGCAACCTAGGTGTCCGCG
GGATGGCGCTCTTCTTCTACTCTCATGCCTGCAACCGGATTTGCGAGAGCATGGGCCTTGCTCCCTTTGA
CCTCTCGCCCCGGGAGAGGGATGCAGTGAATCAGAACACCAAGCTGCTGCAATCAGCCAAGACCATCTTG
AGAGGAACAGAGGAAAAATGTGGGAGCCCCCGAGTAAGGACCCTCTCTGGGAGCCGGCCACCCCTGCTCC
GTCCCCTTTCAGAGAACTCTGGAGACGAGAACATGAGCGACGTGACCTTCGACTCTCTCCCTTCTTCCCC
ATCTTCGGCCACACCACACAGCCAGAAGCTAGACCACCTCCATTGGCCAGTGTTCAGTGACCTCGATAAC
ATGGCATCCAGAGACCATGATCATCTAGACAACCACCGGGAGTCTGAGAATAGTGGGGACAGCGGATACC
CCAGTGAGAAGCGGGGTGAGCTGGATGACCCTGAGCCCCGAGAACATGGCCACTCATACAGTAATCGGAA
GTACGAGTCTGACGAAGACAGCCTGGGCAGCTCTGGACGGGTATGTGTAGAGAAGTGGAATCTCCTCAAC
TCCTCCCGCCTCCACCTGCCGAGGGCTTCGGCCGTGGCCCTGGAAGTGCAAAGGCTTAATGCTCTGGACC
TCGAAAAGAAAATCGGGAAGTCCATTTTGGGGAAGGTCCATCTGGCCATGGTGCGCTACCACGAGGGTGG
GCGCTTCTGCGAGAAGGGCGAGGAGTGGGACCAGGAGTCGGCTGTCTTCCACCTGGAGCACGCAGCCAAC
CTGGGCGAGCTGGAGGCCATCGTGGGCCTGGGACTCATGTACTCGCAGTTGCCTCATCACATCCTAGCCG
ATGTCTCTCTGAAGGAGACAGAAGAGAACAAAACCAAAGGATTTGATTACTTACTAAAGGCCGCTGAAGC
TGGCGACAGGCAGTCCATGATCCTAGTGGCGCGAGCTTTTGACTCTGGCCAGAACCTCAGCCCGGACAGG
TGCCAAGACTGGCTAGAGGCCCTGCACTGGTACAACACTGCCCTGGAGATGACGGACTGTGATGAGGGCG
GTGAGTACGACGGAATGCAGGACGAGCCCCGGTACATGATGCTGGCCAGGGAGGCCGAGATGCTGTTCAC
AGGAGGCTACGGGCTGGAGAAGGACCCGCAGAGATCAGGGGACTTGTATACCCAGGCAGCAGAGGCAGCG
ATGGAAGCCATGAAGGGCCGACTGGCCAACCAGTACTACCAAAAGGCTGAAGAGGCCTGGGCCCAGATGG
AGGAGTAA

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_013302 unedited
ACCGCTCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACCAGAACCAGAATGTCAA
TTCCAAGGTTAATAAGTACTACAGCAACCTAACAAAAAGTGAGCGGTATAGCTCCAGCGGGTCCCCGGCA
AACTCCTTCCACTTCAAGGAAGCCTGGAAGCACGCAATCCAGAAGGCCAAGCACATGCCCGACCCCTGGG
CTGAGTTCCACCTGGAAGATATTGCCACCGAACGTGCTACTCGACACAGGTACAACGCCGTCACCGGGGA
AATTGCTGGGATGATGAAGTTCTGATCAAGATGGCATCTCAGCCCTTCGCCCGGAGGAGCAATGAGTGAG
TGCTTCCGGACGAAAGAAGCCTCTCCAACTTTCTTGCATGCCCCAGCAGTTGGAGGGAACCCTCCACTAC
TTGGCCGATGCCGCTACATCGAACCCCGTAGAACGGGGATTGGTACTTGAAGGAGTGGCTTCACCGATTG
GAGGGCCAAGCCTCGGGGGGAAGGAATTAAAATGGGCAAAAGCCCCAAGCCGGTTGACATATATGCAGTT
GTGACTTCTGAGGTAAAGGACGACCGGCAAAGCCCCCTCTCACCCGGGAACATACTGAGGGCCGGATACT
AGATCACATCTCAATCTGTGCTGTGCGCGAGAGACATTCCCGAGACGCAAGGCTTACGCATTCATTGAAC
GTCGGCACTACGAATGTGTGAATCAGGATTGGACTCTACTGAACCAGTTCCACGACGCACTGACTTGAAC
GACCAGTGCGAAGGCTTTTACCTAAGCGAAGAATCGGACCCTGACTGCCTGACTGCCGAAAAAC

Kinase Domain Sequence:	>SC323690 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation CRMATCKCGCCTTCGGCGAGGAGCATGAGTGAGTGCTTCCGGACGAAGAAGCTCTCCAACTTCTTGCATG CCCAGCAGTGGAAGGGAGCCTCCAACTACGTGGCGATGCGCTACATCGAGCCCGTAGACCGGGATGTGTA CTTTGAGGACGTGCGTCTACAGATGGAGGCCAAGCTCTGGGGGGAGGAGTATAATCGGCACAAGCCCCCC AAGCAGGTGGACATCATGCAGATGTGCATCATCGAGCTGAAGGAC
Restriction Sites:	Please inquire
ACCN:	NM_013302
Insert Size:	4000 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.
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_013302.2, NP_037434.1
RefSeq Size:	3599 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]