

Product datasheet for SC125607

PRKACA (NM_002730) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRKACA (NM_002730) Human Untagged Clone
Tag:	Tag Free
Symbol:	PRKACA
Synonyms:	CAFD1; PKACA; PPNAD4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC125607 sequence for NM_002730 edited (data generated by NextGen Sequencing)

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ATGGGCAACGCCCGCCGCCAAGAAGGGCAGCGAGCAGGAGAGCGTGAAAGAATTCTTA
GCCAAAGCCAAAAGAAGATTTTCTTAAAAAATGGGAAAAGTCCCGCTCAGAACACAGCCAC
TTGGATCAGTTTTGAACGAATCAAGACCCTCGGCACGGGCTCCTTCGGGCGGGTGATGCTG
GTGAAACACAAGGAGACCGGAACCACTATGCCATGAAGATCCTCGACAAACAGAAGGTG
GTGAAACTGAAACAGATCGAACACACCCTGAATGAAAAGCGCATCCTGCAAGCTGTCAAC
TTTCCGTTCTCGTCAAACCTCGAGTTCTCCTTCAAGGACAACCTCAAACCTATAACATGGTC
ATGGAGTACGTGCCCCGGCGGGGAGATGTTCTCACACCTACGGCGGATCGGAAGGTTCAAGT
GAGCCCCATGCCGTTTTCTACGGGCCAGATCGTCTGACCTTTGAGTATCTGCACTCG
CTGGATCTCATCTACAGGGACCTGAAGCCGGAGAATCTGCTCATTGACCAGCAGGGCTAC
ATTCAGGTGACAGACTTCGGTTTTCGCCAAGCGCTGAAGGGCCGCACTTGACCTTTGTGC
GGCACCCCTGAGTACCTGGCCCCGAGATTATCCTGAGCAAAGGCTACAACAAGGCCGTG
GACTGGTGGGCCCTGGGGTTCTTATCTATGAAATGGCCGCTGGCTACCCGCCCTTCTTC
GCAGACCAGCCCCATCCAGATCTATGAGAAGATCGTCTCTGGGAAGGTGCGCTTCCCTTCC
CACTTCAGCTCTGACTTGAAGGACCTGCTGCGGAACCTCCTGCAGGTAGATCTCACCAAG
CGCTTTGGGAACCTCAAGAATGGGGTCAACGATATCAAGAACCACAAGTGGTTTGCACACA
ACTGACTGGATTGCCATCTACCAGAGGAAGGTGGAAGCTCCCTTCATACCAAAGTTTAAA
GGCCCTGGGATACGAGTAACTTTGACGACTATGAGGAAGAAGAAATCCGGGTCTCCATC
AATGAGAAGTGTGGCAAGGAGTTTTCTGAGTTTTAG

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Clone variation with respect to NM_002730.3



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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_002730 unedited GGGATTTTGTAAATACGACTCACTATAGGGCGGCCGAATCTAGAGCGGGCGCGGAGAGAC GCGGGAAGCAGGGGCTGGGCGGGGTCGCGGCCCGCAGCTAGCGCAGCCAGCCCAGGG CCGCCGCCGCCGCCAGCGCGCTCCGGGGCCGCCGCCGAGCCAGCACCCGCCGCG CCGAGCTCCGGGACCGGCCCGGCCCGCCGCCGCGATGGGCAACGCCGCCGCCGCA AGAAGGGCAGCGAGCAGGAGAGCGTGAAAGAATTCTTAGCCAAAGCCAAAGAAGATTTTC TTAAAAAATGGGAAAGTCCCGCTCAGAACACAGCCCACTTGATCAGTTTGAACGAATCA AGACCCTCGGCACGGGCTCCTTCGGGCGGGTGATGCTGGTGAAACACAAGGAGACCGGGA ACCACTATGCCATGAAGATCCTCGACAAACAGAAAGGTGGTGAACCTGAAACAGATCGAAC ACACCCTGAATGAAAAGCGCATCCTGCAAGCTGTCAACTTCCGTTCTCGTCAAACCTCG AGTTCTCCTTCAAGGACAACCTANACTTATACATGGTCATGGAGTACGTGCCCGCGGGG AGATGTTCTCACACCTACCGGGATCCGAAAGTTCAGTGAGCCCCATGCCCGTTTCTACC CGGGCCAGATCGTCTGGCCTTTGAGTATCTGCCCTCGCTGGATCCTATCTACAGGGACC TGGAGCCGGAGGATCTGCTCATTGACCAGCAGGGCTACATTCAGGGACAGACTCGGGTTT GCCAAACGCGGGAAGGGCCCACTGGACCCTGGGCGGGACCCCGGAGACCTGGCCCTGGA TTATCCGAGCAAAGGTACACAGGCCCGGACGGGGGCCCGGGGGCCTTATTATAGAAAG CGCTGGTCACCCCTTTTCGGAACAGCCCTCCAATTATGAAAAACGCTT
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002730 unedited CGGCCCGGAATTCGCGCAGAGGTGGAACCTAAATAAGATTTTAAATTGTTGTTTTTTAA AAAAATTCTAGCAAGCAACCCACTGAACATGCTACTAAAAATCTCTCCTCCCAGGCAGG ATTACTCCGAAAGGAAGTTGGCGCTTCGTTTCATTTGCCCTTAGCAAGTGGGGCCTGTGG TTGGGTGGGATGGGGNN
Restriction Sites:	Please inquire
ACCN:	NM_002730
Insert Size:	1800 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).
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:	<ol style="list-style-type: none"> 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_002730.3 , NP_002721.1
RefSeq Size:	2689 bp
RefSeq ORF:	1056 bp
Locus ID:	5566
UniProt ID:	P17612

Cytogenetics:	19p13.12
Domains:	pkinese, S_TK_X, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Apoptosis, Calcium signaling pathway, Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Hedgehog signaling pathway, Insulin signaling pathway, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Olfactory transduction, Oocyte meiosis, Prion diseases, Progesterone-mediated oocyte maturation, Taste transduction, Vascular smooth muscle contraction, Vibrio cholerae infection, Wnt signaling pathway

Gene Summary: This gene encodes one of the catalytic subunits of protein kinase A, which exists as a tetrameric holoenzyme with two regulatory subunits and two catalytic subunits, in its inactive form. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. cAMP-dependent phosphorylation of proteins by protein kinase A is important to many cellular processes, including differentiation, proliferation, and apoptosis. Constitutive activation of this gene caused either by somatic mutations, or genomic duplications of regions that include this gene, have been associated with hyperplasias and adenomas of the adrenal cortex and are linked to corticotropin-independent Cushing's syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms. Tissue-specific isoforms that differ at the N-terminus have been described, and these isoforms may differ in the post-translational modifications that occur at the N-terminus of some isoforms. [provided by RefSeq, Jan 2015]
Transcript Variant: This variant (1) encodes Calpha1 (PMID:21812984).