

Product datasheet for **SC323366**

PRKACB (NM_002731) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRKACB (NM_002731) Human Untagged Clone
Tag:	Tag Free
Symbol:	PRKACB
Synonyms:	CAFD2; PKA C-beta; PKACB
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_002731, the custom clone sequence may differ by one or more nucleotides

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ATGGGGAACGCGCGACCGCCAAGAAAGGCAGCGAGGTGGAGAGCGTGAAAGAGTTTCTAGCCAAAGCCA  
AAGAAGACTTTTTGAAAAATGGGAGAATCCAACCTCAGAATAATGCCGGACTTGAAGATTTGAAAAGGAA  
AAAAACCTTGGAACAGGTTCAATTTGGAAGAGTCATGTTGGTAAAACACAAAGCCACTGAACAGTATTAT  
GCCATGAAGATCTTAGATAAGCAGAAGGTTGTTAACTGAAGCAAATAGAGCATACTTTGAATGAGAAAA  
GAATATTACAGGCAGTGAATTTTCCTTTCCTTGTTCGACTGGAGTATGCTTTTAAGGATAATTCTAATTT  
ATACATGGTTATGGAATATGTCCTGGGGTGAATGTTTTACATCTAAGAAGAATTGGAAGGTTCACT  
GAGCCCCATGCACGGTTCTATGCAGCTCAGATAGTGCTAACATTCGAGTACCTCCATTCCTAGACCTCA  
TCTACAGAGATCTAAAACCTGAAAATCTCTTAATTGACCATCAAGGCTATATCCAGGTCACAGACTTTGG  
GTTTGCCAAAAGAGTTAAAGGCAGAACCTGGACATTATGTGGAACCTCCAGAGTATTTGGCTCCAGAATA  
ATTCTCAGCAAGGGCTACAATAAGGCAGTGGATTGGTGGGCATTAGGAGTGCTAATCTATGAAATGGCAG  
CTGGCTATCCCCCATTCTTTGCAGACCAACCAATTCAGATTTATGAAAAGATTGTTTCTGGAAAAGTCCG  
ATTCCCATCCCACTTCAGTTCAGATCTCAAGGACCTTCTACGGAACCTGCTGCAGGTGGATTTGACCAAG  
AGATTTGAAAATCTAAGAATGGTGTGAGTGATATAAAAACCTCACAAGTGGTTTGCCACGACAGATTGGA  
TTGCTATTTACCAGAGGAAGGTTGAAGCTCCATTCATACCAAAGTTTAGAGGCTCTGGAGATACCAGCAA  
CTTTGATGACTATGAAGAAGAAGATATCCGTGTCTCTATAACAGAAAAATGTGCAAAAAGAATTTGGTGAA  
TTTTAA
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5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_002731 unedited CCCGCCGTCTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA ACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCTTCCCTTCCCTG ACCCTTCTTGCATCGCCCCAGACATGGGGAACGCGGCACCGCCAAGAAAGGCAGCGAGGTGGAGAGC GTGAAAGAGTTTCTAGCCAAAGCCAAAGAAGACTTTTTGAAAAATGGGAGAATCCAACCTCAGAATAATG CCGGACTTGAAGATTTTAAAAGGAAAAAACCCCTTGAACAGGTGTCATTTGGAAGAGTCATGTTGGTAA AACACAAAGCCACTGAACAGTATTATGCCATGATGATCTTAGATAAGCAGAGGTTTGTAAACTGAGCAA ATAGAGATACTTTGAATGAGAAAAGAATTACGGCAGTGATTTTCTTCTTGTTCGACTGGATATGCTT TTAAGGTAATCTATTTATAATGTTATGGAAAGGCCCTGGGGTGAAGTTTCTCTAAAAGATTGGAAGG TCATGGCCCCATGACGGTTCATGAGCTCAAATGTCTAAATTCGATCCTCTTCTACCCTCTTACAGATTC TAACCGGAATCTTTATACCTCAGGCTTTCGGTCAACTTTGGTTTGCAAAATAGGAATTGACATTGGAACC CAATTGCCAAATCTCACGGCCATGGTGATGGCATAAGGTCATAAGGCCGTACCCATCGGACAAATATGA GAAGTTCGAGGCTACCCTTCATAGCATCGAAGCTGAGTACCCATGACCCAAGCCGCAAAACC
Kinase Domain Sequence:	>SC323366 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation CCCTGMGCAATGGGCGGTAGGCKGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCA GAATTTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCTTCCCTTCCCTGACCCCTT CTTGCCATCGCCCCAGACATGGGGAACGCGGCACCGCCAAGAAAGGCAGCGAGGTGGAGAGCGTGAAAG AGTTTCTAGCCAAAGCCAAAGAAGACTTTTTGAAAAATGGGAGA
Restriction Sites:	Please inquire
ACCN:	NM_002731
Insert Size:	4350 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:	<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_002731.2 , NP_002722.1
RefSeq Size:	4529 bp
RefSeq ORF:	1056 bp

Locus ID:	5567
UniProt ID:	P22694
Cytogenetics:	1p31.1
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:	<p>The protein encoded by this gene is a member of the serine/threonine protein kinase family. The encoded protein is a catalytic subunit of cAMP (cyclic AMP)-dependent protein kinase, which mediates signalling through cAMP. cAMP signaling is important to a number of processes, including cell proliferation and differentiation. Multiple alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2014]</p> <p>Transcript Variant: This variant (2) differs in the 5' exon structure, compared to variant 1. The encoded isoform (2, also known as Cbeta1) has a distinct N-terminus and is shorter than isoform 1.</p>