

Product datasheet for **SC323516**

CKII alpha (CSNK2A1) (NM_177559) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CKII alpha (CSNK2A1) (NM_177559) Human Untagged Clone
Tag:	Tag Free
Symbol:	CKII alpha
Synonyms:	CK2A1; Cka1; Cka2; CKII; OCNDS
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_177559, the custom clone sequence may differ by one or more nucleotides

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ATGTCGGGACCCGTGCCAAGCAGGGCCAGAGTTTACACAGATGTTAATACACACAGACCTCGAGAATACT
GGGATTACGAGTCACATGTGGTGGAAATGGGGAAATCAAGATGACTACCAGCTGGTTCGAAAATTAGGCCG
AGGTAATACAGTGAAGTATTTGAAGCCATCAACATCACAAATAATGAAAAAGTTGTTGTTAAAATTCTC
AAGCCAGTAAAAAGAAGAAAATTAAGCGTGAAATAAAGATTTTGGAGAATTTGAGAGGAGGTCCCAACA
TCATCACACTGGCAGACATTGTAAGACCCCTGTGTCACGAACCCCGCCTTGGTTTTTGAACACGTAA
CAACACAGACTTCAAGCAATTGTACCAGACGTTAACAGACTATGATATTCGATTTTACATGTATGAGATT
CTGAAGGCCCTGGATTATTGTCACAGCATGGGAATTATGCACAGAGATGTCAAGCCCATAATGTCATGA
TTGATCATGAGCACAGAAAGCTACGACTAATAGACTGGGGTTTGGCTGAGTTTTATCATCCTGGCCAAGA
ATATAATGTCCGAGTTGCTTCCCGATACTTCAAAGGTCCTGAGCTACTTGTAGACTATCAGATGTACGAT
TATAGTTTGGATATGTGGAGTTTGGGTTGTATGCTGGCAAGTATGATCTTTCGGAAGGAGCCATTTTCC
ATGGACATGACAATTATGATCAGTTGGTGGAGTAGCCAAGGTTCTGGGGACAGAAGATTATATGACTA
TATTGACAAATACAACATTGAATTAGATCCACGTTTCAATGATATCTTGGGCAGACACTCTCGAAAGCGA
TGGGAACGCTTTGTCCACAGTAAAATCAGCACCTTGTACGCCCTGAGGCCTTGGATTTCTGGACAAAC
TGCTGCGATATGACCACAGTCACGGCTTACTGCAAGAGAGGCAATGGAGACCCCTATTCTACACTGT
TGTGAAGGACCAGGCTCGAATGGGTTTCATCTAGCATGCCAGGGGGCAGTACGCCCTCAGCAGGCCAAT
ATGATGTCAGGGATTTCTCAGTGCCAAACCCCTTCAACCCTTGGACCTTGGCAGGCTCACCAGTGATTG
CTGCTGCCAACCCCTTGGGATGCCTGTTCCAGCTGCCGCTGGCGCTCAGCAGTAA
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5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_177559 unedited ACGCCCCTAGAGCAATGGGCGGTAGGCGCTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA ACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCAGGAGGGTCTCCTCCTCCA TCGCCGCCATATTGTCTGTGTGAGCAGAGGGGAGAGCGGGCCGCCCGCTGCCGTTCCACCACAGCTCT ATCAAGGCTTGTCAAGCAGTGTGCTCATCACATGGTAAATCATGCAGCGTGAACCTCATAAAATCTCCA AGAAACATCATTACCCATACTGACTAGTTTCACATCTCTTTGTTGAAGAAAAACAGGTCTGAAAAACA GGTCTAACCCAGCTGCTTCTGAACACAGTACTGCCAGAATCTCCAAACATCAAGTCCAGCTTTGTC CGCCAACCGGTCTGACTGGTCGGAACCCGTGCAAGCAGGGCCAGAGTTTACCCAGTGTTAATCCCCACC CTCGAAAACTGGAATACAGTTCAGGTGTGGATTGGAAATCAAAGGATACACTGGTTCAAATTAGCAG AGTACTCGTGATTTTTGACCCCAACACATAAAAA
Kinase Domain Sequence:	>SC323516 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 TGATCGAATTATGCCGAGKAATACAGTGAAGTATTTGAAGCCATCAACATCACAAATAATGAAAAAGTTG TTGTTATGATTCTCAAGCCAGTAAAAAGAAGAAAATTAAGCGTAAATAAAGATTTGGAGAATTTGAG AGGAGGTCCCAACATCATCACTGGCAGACATTGTAAGACCCGTGTGTACGAACCCCGCCTTGTT TTTGAACCGTAAACAACACAGACTTCAAGCAATTGTACCAGACG
Restriction Sites:	Please inquire
ACCN:	NM_177559
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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 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_177559.2 , NP_808227.1
RefSeq Size:	2849 bp
RefSeq ORF:	1176 bp
Locus ID:	1457
UniProt ID:	P68400
Cytogenetics:	20p13
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways:	Adherens junction, Tight junction, Wnt signaling pathway
Gene Summary:	<p>Casein kinase II is a serine/threonine protein kinase that phosphorylates acidic proteins such as casein. It is involved in various cellular processes, including cell cycle control, apoptosis, and circadian rhythm. The kinase exists as a tetramer and is composed of an alpha, an alpha-prime, and two beta subunits. The alpha subunits contain the catalytic activity while the beta subunits undergo autophosphorylation. The protein encoded by this gene represents the alpha subunit. Multiple transcript variants encoding different protein isoforms have been found for this gene. [provided by RefSeq, Apr 2018]</p> <p>Transcript Variant: This variant (1) encodes the longer isoform (a). Variants 1, 2, 4 and 5 encode the same protein.</p>