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Product datasheet for SC323395

CKII alpha (CSNK2A1) (NM_001895) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CKII alpha (CSNK2A1) (NM_001895) Human Untagged Clone
Tag:	Tag Free
Symbol:	CKII alpha
Synonyms:	CK2A1; Cka1; Cka2; CKII; OCNDS
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC323395 sequence for NM_001895 edited (data generated by NextGen Sequencing)

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ATGTCGGGACCCGTGCCAAGCAGGGCCAGAGTTTACACAGATGTTAATACACACAGACCT
CGAGAATACTGGGATTACGAGTCACATGTGGTGGAATGGGGAAATCAAGATGACTACCAG
CTGGTTCGAAAATTAGGCCGAGGTAAATACAGTGAAGTATTTGAAGCCATCAACATCACA
AATAATGAAAAAGTTGTTGTTATGATTCTCAAGCCAGTAAAAAAGAAGAAAATTAAGCGT
GAAATAAAGATTTTGGAGAATTTGAGAGGAGGTCCCAACATCATCACACTGGCAGACATT
GTAAAAGACCCTGTGTCACGAACCCCCGCCTTGGTTTTTGAACACGTAAACAACACAGAC
TTCAAGCAATTGTACCAGACGTTAACAGACTATGATATTCGATTTTACATGTATGAGATT
CTGAAGGCCCTGGATTATTGTCACAGCATGGGAATTATGCACAGAGATGTCAAGCCCCAT
AATGTCATGATTGATCATGAGCACAGAAAGCTACGACTAATAGACTGGGGTTTGGCTGAG
TTTTATCATCCTGGCCAAGAATATAATGTCCGAGTTGCTTCCCGATACTTCAAAGGTCCT
GAGCTACTTGTAGACTATCAGATGTACGATTATAGTTTGGATATGTGGAGTTTGGGTTGT
ATGCTGGCAAGTATGATCTTTCGGAAGGAGCCATTTTTCCATGGACATGACAATTATGAT
CAGTTGGTGAGGATAGCCAAGGTTCTGGGGACAGAAGATTTATATGACTATATTGACAAA
TACAACATTGAATTAGATCCACGTTTCAATGATATCTTGGGCAGACACTCTCGAAAGCGA
TGGGAACGCTTTGTCCACAGTGAAAATCAGCACCTTGTCAGCCCTGAGGCCTTGGATTTC
CTGGACAAACTGCTGCGATATGACCACCAGTCACGGCTTACTGCAAGAGAGGCAATGGAG
CACCCCTATTTCTACACTGTTGTGAAGGACCAGGCTCGAATGGGTTCATCTAGCATGCCA
GGGGGCAGTACGCCCGTCAGCAGCGCCAATATGATGTCAGGGATTTCTTTAGTGCCAACC
CCTTCACCCCTTGGACCTCTGGCAGGCTCACCAGTGATTGCTGCTGCCAACCCCCTTGGG
ATGCCTGTTCCAGCTGCCGCTGGCGCTCAGCAGTAA

Clone variation with respect to NM_001895.3
203 a=>t;204 a=>g;1070 c=>t
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5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_001895 unedited
CCGCCCGTCCAGCAACGGGCGGTAGGCGCGTACGGCGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA
CCGTCAGAATCTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGGAGAGCGGCCGCC
GCCGCTGCCGCTTCCACCACAGTTTGAAGAAAACAGGTCTGAAACAAGGTCTTACCCCCAGCTGCTTCTG
AACACAGTGACTGCCAGATCTCCAAACATCAAGTCCAGCTTTGTCCGCCAACCTGTCTGACATGTCGGGA
CCCGTGCCAAGCAGGGCCAGAGTTTACACAGATGTTAATACACACAGACCTCGAGAATACTGGTGATTAC
TGAGTCACATGTGGTGGAATGGGGAAATCAAGATGACTACCCAGCTGGTTCGAAAATTAGGCCGAGGTGA
ATTACAGTTGAAGTATTTGAAGCCCATCACATCACAAATAATGAAAAAGTTGTTGGTTATGATTCTCAGC
CAGTAAAAAAGAAGAAAATTAGCGTGAAATAAGATTTGGAGATTTGGAAGGAGGTCCCAACTCATCACCT
GCAGGACATTGAAAAGACCTGGGTAAGAACCCCCGCCTGGTTTTTGAACCGTAACCACCGATTCAGCATT
GTCCAACTTACGACATGGATTCGATTTACGGTAAATCGAGCCTGATATGCCAACTGGATTAGCAGAATTC
AGCCTATGTCGATGACTGGCCGGAGACCACTAGACTGGTGCGATTAAACTGCCAATATGCAAGTTCGGAC
TCAGTCGACATGACTGATGCAATTGATTGATGGGCGGCATTTT

Kinase Domain Sequence:

>SC323395 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
CKCTCGAATAGGCCGAGGTAATACAGTGAAGTATTTGAAGCCATCAACATCACAAATAATGAAAAAGTTG
TTGTTATGATTCTCAAGCCAGTAAAAAAGAAGAAAATTAAGCGTGAAATAAAGATTTTGGAGAATTTGAG
AGGAGGTCCCAACATCATCACACTGGCAGACATTGTAAAAGACCCTGTGTCACGAACCCCCGCCTTGGTT
TTTGAACACGTAAACAACACAGACTTCAAGCAATTGTACCAGACG

Restriction Sites: Please inquire

ACCN: NM_001895

Insert Size: 2680 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_001895.3, NP_001886.1

RefSeq Size: 2732 bp

RefSeq ORF: 1176 bp

Locus ID:	1457
UniProt ID:	P68400
Cytogenetics:	20p13
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways:	Adherens junction, Tight junction, Wnt signaling pathway
Gene Summary:	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] Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1, 2, 4 and 5 encode the same protein.