

Product datasheet for **SC323470**

Casein Kinase 1 alpha (CSNK1A1) (NM_001892) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Casein Kinase 1 alpha (CSNK1A1) (NM_001892) Human Untagged Clone
Tag:	Tag Free
Symbol:	Casein Kinase 1 alpha
Synonyms:	CK1; CK1a; CK1a; HEL-S-77p; HLCDGP1; PRO2975
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323470 sequence for NM_001892 edited (data generated by NextGen Sequencing)

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ATGGCGAGTAGCAGCGGCTCCAAGGCTGAATTCATTGTCGGAGGAAATATAAACTGGTA
CGGAAGATCGGGTCTGGCTCCTTCGGGGACATCTATTTGGCGATCAACATCACCAACGGC
GAGGAAGTGGCAGTGAAGCTAGAATCTCAGAAGGCCAGGCATCCCCAGTTGCTGTACGAG
AGCAAGCTCTATAAGATTCTTCAAGGTGGGGTTGGCATCCCCACATACGGTGGTATGGT
CAGGAAAAAGACTACAATGTACTAGTCATGGATCTTCTGGGACCTAGCCTCGAAGACCTC
TTCAATTTCTGTTCAAGAAGGTTCACAATGAAAAGTACTTATGTTAGCTGACCAGATG
ATCAGTAGAATTGAATATGTGCATACAAAGAATTTATACACAGAGACATTAACCAGAT
AACTTCCTAATGGGTATTGGGCGTCACTGTAATAAGTTATTCCTTATTGATTTTGGTTT
GCCAAAAAGTACAGAGACAACAGGACAAGGCAACACATACCATACAGAGAAGATAAAAAC
CTCACTGGCACTGCCCGATATGCTAGCATCAATGCACATCTTGGTATTGAGCAGAGTCGC
CGAGATGACATGGAATCATTAGGATATGTTTTGATGTATTTAATAGAACCAGCCTGCCA
TGGCAAGGGCTAAAGGCTGCAACAAAGAAACAAAAATATGAAAAGATTAGTGAAAAGAAG
ATGTCCACGCCTGTTGAAGTTTTATGTAAGGGGTTTCTCTCGCAAATTTGCGATGACTTA
AACTATTGTCGTGGGCTACGCTTTGAGGAAGCCCCAGATTACATGTATCTGAGGCAGCTA
TTCCGCATTCTTTTCAGGACCCTGAACCATCAATATGACTACACATTTGATTGGACAATG
TTAAAGCAGAAAGCAGCACAGCAGGCAGCCTCTCCAGTGGGCAGGGTCAGCAGGCCCAA
ACCCCCACAGGCAAGCAAAGTACAAAACCAAGAGTAACATGAAAAGGTTTCTAA
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Clone variation with respect to NM_001892.4



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5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_001892 unedited CCCCCGCTTGAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA ACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGACAGGGGTCCT CTGGGCCGGAGCGCGCGGCAGTGGTGGCAGCGGTATCGCCGCCCTAGCTCACCGGCCCTTTCCAGC CCGCGACGTCGCCGCGCAAGCGAGGCAGCGGCCGCCGAGAAACAAGTGGCCAGCCTGGTAACCGCC GAGAAGCCCTTCACAACTGCGGCCTGGCAAAAAGAACTGACTGAGCGCGGTGATCAGGTGTCCCGC TCTGCTGATTCTGGGCCCGAACCCCGGTAAAGGCCTCCGTGTTCCGTTTTCTGCCGCCCTCTCCG TAGCCCTTGCCTATGTAGGACCCCGAGGCCTCCGTCTCTTCCAGAGTTGTCGGGGCTTGCCCCAGC CCTCCATCTTCGTTCTAAGGATGGCAAGTAGCAGCGGTCCAAGGCTGATTTCAATGCGGGAGGGAA TTTACCTGGTACGGAGATCGGGTCTGGTCCCTCGGGACATATTTTGGCGTAACTCCCACGGAGGGAATG GGCATGATGCTAATCTAAAGGGCGAGCTCAATGTGTGTCAGAGACAGCTATAGAGATTTCAAGGGGTGG CCCACCATCGTGTGATGACGGAACACAACAGATATCTCGGCGTA
Kinase Domain Sequence:	>SC323470 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 CYATGMGCATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCA GAATTTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGACAGGGGTCCTCTGGGCC GGAGCCGGCGGCAGTGGTGGCAGCGGTATCGCCGCCCTAGCTCACCGGCCCTTTCCAGCCCGCGACG TCGCCGCGCAAGCGAGGCAGCGGCCGCCGAGAAACAAGTGGC
Restriction Sites:	Please inquire
ACCN:	NM_001892
Insert Size:	2630 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_001892.4 , NP_001883.4
RefSeq Size:	3065 bp
RefSeq ORF:	1014 bp

Locus ID:	1452
UniProt ID:	P48729
Cytogenetics:	5q32
Domains:	pkinese, TyrKc, S_TKc
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways:	Hedgehog signaling pathway, Wnt signaling pathway
Gene Summary:	<p>Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. It can phosphorylate a large number of proteins. Participates in Wnt signaling. Phosphorylates CTNNB1 at 'Ser-45'. May phosphorylate PER1 and PER2. May play a role in segregating chromosomes during mitosis (PubMed:11955436, PubMed:1409656, PubMed:18305108). May play a role in keratin cytoskeleton disassembly and thereby, it may regulate epithelial cell migration (PubMed:23902688).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) lacks an in-frame internal exon, compared to variant 1. This results in a shorter protein (isoform 2), compared to isoform 1.</p>