

Product datasheet for RC201797

Casein Kinase 1 alpha (CSNK1A1) (NM_001892) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Casein Kinase 1 alpha (CSNK1A1) (NM_001892) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Casein Kinase 1 alpha
Synonyms:	CK1; CK1a; CK1a; HEL-S-77p; HLCDGP1; PRO2975
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201797 representing NM_001892 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGAGTAGCAGCGGCTCCAAGGCTGAATTCATTGTGCGGAGGAAATATAAACTGGTACGGAAGATCG
GGTCTGGCTCCTTCGGGACATCTATTTGGCGATCAACATCACCAACGGCGAGGAAGTGGCAGTGAAGCT
AGAATCTCAGAAGGCCAGGCATCCCAGTTGCTGTACGAGAGCAAGCTCTATAAGATTCTCAAGGTGGG
GTTGGCATCCCCACATACGGTGGTATGGTCAGGAAAAAGACTACAATGTACTAGTCATGGATCTTCTGG
GACCTAGCCTCGAAGACCTTTCAATTTCTGTTCAAGAAGTTTACAATGAAAAGTACTTATGTTAGC
TGACCAGATGATCAGTAGAATTGAATATGTGCATACAAAGAATTTATACACAGAGACATTAACCAGAT
AACTTCCTAATGGGTATTGGGCGTCACTGTAATAAGTTATTCCTATTGATTTTGGTTTGGCCAAAAAGT
ACAGAGACAACAGGACAAGGCAACACATACCATACAGAGAAGATAAAAACCTCACTGGCACTGCCGATA
TGCTAGCATCAATGCACATCTTGGTATTGAGCAGAGTCGCCGAGATGACATGGAATCATTAGGATATGTT
CTGATGATTTTAAATAGAACCAGCCTGCCATGGCAAGGGCTAAAGGCTGCAACAAAGAAACAAAAATATG
AAAAGATTAGTAAAAGAAGATGTCCACGCCTGTTGAAGTTTTATGTAAGGGGTTTCTGCAGAATTTGC
GATGTACTTAACTATTGTCGTGGGCTACGCTTTGAGGAAGCCCCAGATTACATGTATCTGAGGCAGCTA
TTCCGATTCTTTTCAGGACCCTGAACCATCAATATGACTACACATTTGATTGGACAATGTTAAAGCAGA
AAGCAGCACAGCAGGCAGCCTCTTCCAGTGGGCAGGGTCCAGCAGGCCAAACCCACAGGCAAGCAAAAC
TGACAAAACCAAGAGTAACATGAAAGTTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201797 representing NM_001892
Red=Cloning site Green=Tags(s)

MASSSGSKAEFIVGGKYKLVKIGSGSFGDIYLAINITNGEEVAVKLESQKARHPQLLYESKLYKILQGG
 VGIPHIRWYGQEKDYNVLMDDLGPSLEDLNFCSRFTMKTVLMADQMISRIEYVHTKNFIHRDIKPD
 NFLMGIGRHCNKLFLIDFGLAKKYRDNRTQRQHIPPYREDKNLTGTARYASINAHLGIEQSRDDMESLGYV
 LMYFNRTSLPWQGLKAATKKQKYEKISEKKMSTPVEVLCKGFPAEFAMYLNYCRGLRFEEAPDYMYLRQL
 FRILFRTLNHQYDYTFDWTMLKQKAAQQAASSSGQGQQAQTPTGKQTDKTKSNMKGF

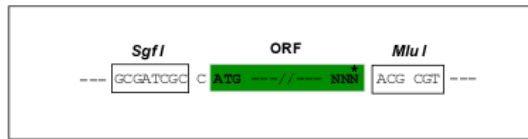
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4170_a01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001892

ORF Size: 1011 bp

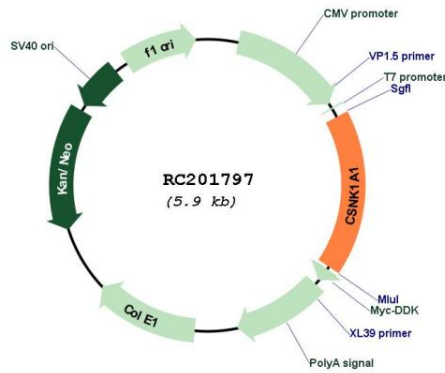
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

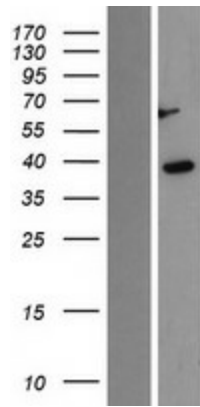
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_001892.6
RefSeq Size:	3065 bp
RefSeq ORF:	1014 bp
Locus ID:	1452
UniProt ID:	P48729
Cytogenetics:	5q32
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways:	Hedgehog signaling pathway, Wnt signaling pathway
MW:	38.7 kDa
Gene Summary:	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]

Product images:



Circular map for RC201797



Western blot validation of overexpression lysate (Cat# [LY419689]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201797 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).