

Product datasheet for RC217936

Casein Kinase 1 alpha (CSNK1A1) (NM_001025105) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Casein Kinase 1 alpha (CSNK1A1) (NM_001025105) 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:	>RC217936 representing NM_001025105 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCGAGTAGCAGCGGCTCCAAGGCTGAATTCATTGTGCGGAGGAAATATAAACTGGTACGGAAGATCG
GGTCTGGCTCCTTCGGGACATCTATTTGGCGATCAACATCACCAACGGCGAGGAAGTGGCAGTGAAGCT
AGAATCTCAGAAGGCCAGGCATCCCCAGTTGCTGTACGAGAGCAAGCTCTATAAGATTCTCAAGGTGGG
GTTGGCATCCCCACATACGGTGGTATGGTCAGGAAAAAGACTACAATGTACTAGTCATGGATCTTCTGG
GACCTAGCCTCGAAGACCTTTCAATTTCTGTTCAAGAAGTTTACAATGAAAAGTACTTATGTTAGC
TGACCAGATGATCAGTAGAATTGAATATGTGCATACAAAGAATTTATACACAGAGACATTAACCAGAT
AACTTCCTAATGGGTATTGGGCGTCACTGTAATAAGTGTTTAGAATCTCCAGTGGGGAAGAGGAAAAGAA
GCATGACTGTTAGTACTTCTCAGGACCCATCTTCTCAGGATTAACCAGTTATTCCTTATTGATTTTGG
TTTGGCAAAAAGTACAGAGACAACAGGACAAGGCAACACATACCATACAGAGAAGATAAAACCTCACT
GGCACTGCCGATATGCTAGCATCAATGCACATCTTGGTATTGAGCAGAGTCGCCGAGATGACATGGAAT
CATTAGGATATGTTTTGATGATTTTAATAGAACCAGCCTGCCATGGCAAGGGCTAAAGGCTGCAACAAA
GAAACAAAATATGAAAAGATTAGTGAAAAGAAGATGTCCACGCCCTGTTGAAGTTTTATGAAGGGTTT
CCTGCAGAAATTTGCGATGTAATAACTATTGTCGTGGGCTACGCTTTGAGGAAGCCCGAGATTACATGT
ATCTGAGGCAGCTATTCCGATTCTTTTCAGGACCCTGAACCATCAATATGACTACACATTTGATTGGAC
AATGTTAAAGCAGAAAGCAGCACAGCAGGCAGCCTCTTCCAGTGGCAGGGTCAGCAGGCCCAAACCCCC
ACAGGCAAGCAAAGTACAAAACCAAGAGTAACATGAAAGGTTTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC217936 representing NM_001025105
Red=Cloning site Green=Tags(s)

MASSSGSKAEFIVGGKYKLVKIGSGSFGDIYLAINITNGEEVAVKLESQKARHPQLLYESKLYKILQGG
 VGIPHIRWYGQEKDYNVLMDDLGPSLEDLNFCSRRTMKTVLMADQMISRIEYVHTKNFIHRDIKPD
 NFLMGIGRHCNKCLESPVGRKRKRSMTVSTSQDPSFSGLNQLFLIDFGLAKKYRDNTRQHIPPYREDKNLT
 GTARYASINAHLGIEQSRDDMESLGYVLMYFNRTSLPWQGLKAATKKQKYEKISEKKMSTPVEVLCKGF
 PAEFAMYLNYCRGLRFEEAPDYMRLRQLFRILFRTLNHQYDYTFDWTMLKQKAAQQAASSSGQGQAQTP
 TGKQTDKTKSNMKGF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8016_f01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001025105

ORF Size: 1095 bp

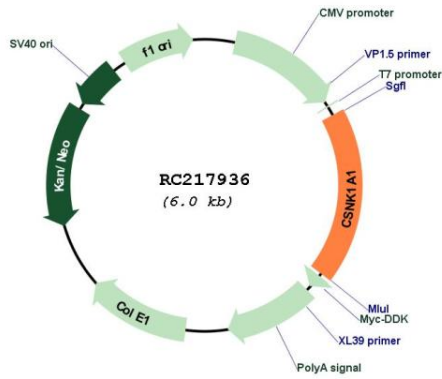
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

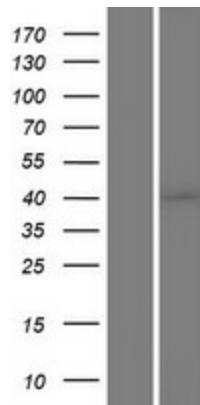
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001025105.3
RefSeq Size:	3149 bp
RefSeq ORF:	1098 bp
Locus ID:	1452
UniProt ID:	P48729
Cytogenetics:	5q32
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways:	Hedgehog signaling pathway, Wnt signaling pathway
MW:	41.8 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 RC217936



Western blot validation of overexpression lysate (Cat# [LY422590]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217936 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).