

## Product datasheet for **RC222302**

### CKII alpha (CSNK2A1) (NM\_001895) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CKII alpha (CSNK2A1) (NM_001895) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CKII alpha
Synonyms:	CK2A1; Cka1; Cka2; CKII; OCNDS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222302 representing NM_001895 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGGGACCCGTGCCAAGCAGGGCCAGAGTTTACACAGATGTTAATACACACAGACCTCGAGAATACT  
GGGATTACGAGTCACATGTGGTGGAAATGGGAAATCAAGATGACTACCAGCTGGTTCGAAAATTAGGCCG  
AGGTAATACAGTGAAGTATTTGAAGCCATCAACATCACAAATAATGAAAAAGTTGTTGTTAAAATTCTC  
AAGCCAGTAAAAAGAAGAAAATTAAGCGTGAAATAAAGATTTTGGAGAATTTGAGAGGAGGTCCCAACA  
TCATCACACTGGCAGACATTGTAAGACCCCTGTGTACGAACCCCGCCTTGGTTTTTGAACACGTAAA  
CAACACAGACTTCAAGCAATTGTACCAGACGTTAACAGACTATGATATTCGATTTTACATGTATGAGATT  
CTGAAGGCCCTGGATTATTGTACAGCATGGGAATTATGCACAGAGATGTCAAGCCCATAATGTCATGA  
TTGATCATGAGCAGAAAGCTACGACTAATAGACTGGGGTTTGGCTGAGTTTTATCATCTGGCCAAGA  
ATATAATGTCCGAGTTGCTTCCCGATACTTCAAAGGTCCTGAGCTACTTGTAGACTATCAGATGTACGAT  
TATAGTTTGGATATGTGGAGTTTGGTTGTATGCTGGCAAGTATGATCTTTCGGAAGGAGCCATTTTCC  
ATGGACATGACAATTATGATCAGTTGGTGGAGTAGCCAAGGTTCTGGGGACAGAAGATTTATATGACTA  
TATTGACAAATACAACATTGAATTAGATCCACGTTTCAATGATATCTTGGCAGACACTCGAAAGCGA  
TGGGAACGCTTTGTCCACAGTGAAAATCAGCACCTTGTACGCCCTGAGGCCTTGGATTTCTGGACAAAC  
TGCTGCGATATGACCACAGTCACGGCTTACTGCAAGAGAGGCAATGGAGCACCCCTATTTCTACACTGT  
TGTGAAGGACCAGGCTCGAATGGTTTCATCTAGCATGCCAGGGGAGTACGCCCGTCAGCAGCGCCAAT  
ATGATGTCAGGGATTTCTTCAGTGCCAACCCCTTCAACCCCTTGGACCTCTGGCAGGCTCACCAGTGATTG  
CTGCTGCCAACCCCTTGGGATGCCTGTCCAGCTGCCGCTGGCGCTCAGCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC222302 representing NM\_001895  
Red=Cloning site Green=Tags(s)

MSGPVPSRARVYTDVNTHRPREYWDYESHVVEWGNQDDYQLVRKLGRGKYSEVFEAINITNNEKVVVKIL  
 KPVKKKIKREIKILENLRGGPNIITLADIVKDPVSRTPALVFEHVNNTDFKQLYQTLTDYDIRFYMYEI  
 LKALDYCHSMGIMHRDVKPHNVMIDHEHRKLRLLIDWGLAEFYHPGQEYNVRVASRYFKGPELLVDYQMYD  
 YSLDMWSLGCMLASMIFRKEPFFHGHNDYDQLVRIAKVLGTEDLYDYIDKYNIELDPRFNDILGRHSRKR  
 WERFVHSENQHLVSPALDFLDKLLRYDHSRLTAREAMEHPYFYTVVKDQARMGSSSMPGGSTPVSSAN  
 MMSGISSVPTPSPLGPLAGSPVIAAANPLGMPVPAAGAQQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKVV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8076\\_g10.zip](https://cdn.origene.com/chromatograms/mk8076_g10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001895

**ORF Size:** 1173 bp

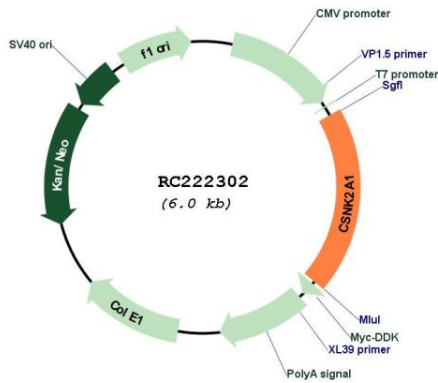
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone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

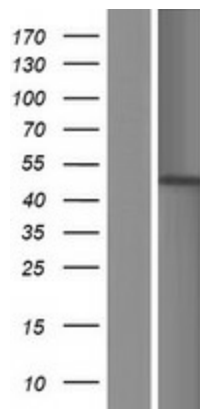
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001895.4</a>
<b>RefSeq Size:</b>	2732 bp
<b>RefSeq ORF:</b>	1176 bp
<b>Locus ID:</b>	1457
<b>UniProt ID:</b>	<a href="#">P68400</a>
<b>Cytogenetics:</b>	20p13
<b>Domains:</b>	pkinese, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
<b>Protein Pathways:</b>	Adherens junction, Tight junction, Wnt signaling pathway
<b>MW:</b>	45 kDa
<b>Gene Summary:</b>	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]

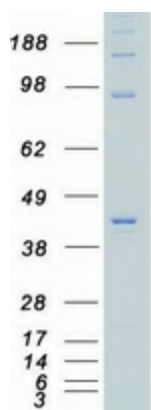
Product images:



Circular map for RC222302



Western blot validation of overexpression lysate (Cat# [LY419673]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222302 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CSNK2A1 protein (Cat# [TP322302]). The protein was produced from HEK293T cells transfected with CSNK2A1 cDNA clone (Cat# RC222302) using MegaTran 2.0 (Cat# [TT210002]).