

Product datasheet for **RG222256**

CKII alpha (CSNK2A1) (NM_177559) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CKII alpha (CSNK2A1) (NM_177559) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CSNK2A1
Synonyms:	CK2A1; Cka1; Cka2; CKII; OCNDS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222256 representing NM_177559 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGGGACCCGTGCCAAGCAGGGCCAGAGTTTACACAGATGTTAATACACACAGACCTCGAGAATACT
GGGATTACGAGTCACATGTGGTGAATGGGAAATCAAGATGACTACCAGCTGGTTCGAAAATTAGGCCG
AGGTAATACAGTGAAGTATTTGAAGCCATCAACATCACAAATAATGAAAAAGTTGTTGTTAAAATTCTC
AAGCCAGTAAAAAGAAGAAAATAAGCGTGAAATAAAGATTTGGAGAATTTGAGAGGAGGTCCCAACA
TCATCACACTGGCAGACATTGTAAGACCCCTGTGTACGAACCCCGCCTTGGTTTTGAAACACGTAAA
CAACACAGACTTCAAGCAATTGTACCAGACGTTAACAGACTATGATATTCGATTTACATGTATGAGATT
CTGAAGGCCCTGGATTATTGTCACAGCATGGGAATTATGCACAGAGATGTCAAGCCCATAATGTCATGA
TTGATCATGAGCAGAAAGCTACGACTAATAGACTGGGGTTGGCTGAGTTTTATCATCTGGCCAAGA
ATATAATGTCCGAGTTGCTTCCCGATACTTCAAAGTCTGAGCTACTTGTAGACTATCAGATGTACGAT
TATAGTTTGGATATGTGGAGTTTGGTTGTATGCTGGCAAGTATGATCTTTCGGAAGGAGCCATTTTCC
ATGGACATGACAATTATGATCAGTTGGTGGAGTAGCCAAGTTCTGGGGACAGAAGATTTATATGACTA
TATTGACAAAACAACATTGAATTAGATCCACGTTTCAATGATATCTTGGCAGACACTCTCGAAAGCGA
TGGGAACGCTTTGTCCACAGTGAAAATCAGCACCTTGTACGCCCTGAGGCCTTGGATTTCTGGACAAAC
TGCTGCGATATGACCACAGTCACGGCTTACTGCAAGAGAGGCAATGGAGCACCCCTATTTCTACACTGT
TGTGAAGGACCAGGCTCGAATGGTTTCATCTAGCATGCCAGGGGAGTACGCCCGTACGAGCGCCAAT
ATGATGTCAGGGATTTCTTCAAGTCCAACCCCTTCAACCCCTTGGACCTCTGGCAGGCTCACCAGTGATTG
CTGCTGCCAACCCCTTGGGATGCCTGTCCAGCTGCCGCTGGCCTCAGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG222256 representing NM_177559
 Red=Cloning site Green=Tags(s)

MSGPVPSRARVYTDVNTHRPREYWDYESHVVEWGNQDDYQLVRKLGKGYSEVFEAINITNNEKVVVKIL
 KPVKKKKIKREIKILENLRGGPNIITLADIVKDPVSRTPALVFEHVNNTDFKQLYQTLTDYDIRFYMYEI
 LKALDYCHSMGIMHRDVKPHNVIMIDHEHRKRLRIDWGLAEFYHPGQEYNVRVASRYFKGPELLVDYQMYD
 YSLDMWSLGCMLASMIFRKEPFFHGHDNYDQLVRIAKVLGTEDLYDYIDKYNIELDPRFNDILGRHSRKR
 WERFVHSENQHLVSPALDFLDKLLRYDHQSRLTAREAMEHPYFTVVVKDQARMGSSSMPGGSTPVSSAN
 MMSGISSVPTSPPLGPLAGSPVIAAANPLGMPVPAAGAQQ

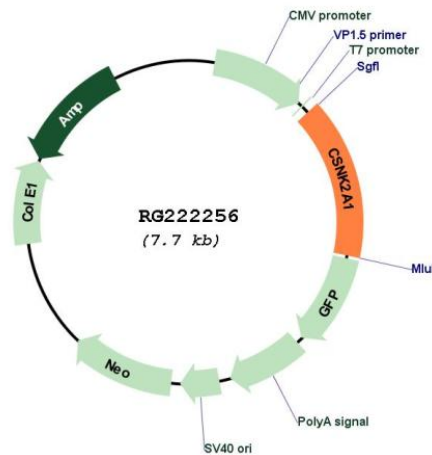
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_177559

ORF Size:	1173 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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_177559.3
RefSeq Size:	2849 bp
RefSeq ORF:	1176 bp
Locus ID:	1457
UniProt ID:	P68400
Cytogenetics:	20p13
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]