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Product datasheet for RC202145

CSNK1G2 (NM_001319) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CSNK1G2 (NM_001319) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CSNK1G2
Synonyms:	CK1g2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC202145 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATTTTGACAAGAAAGGAGGGAAAGGGGAGACGGAGGAGGGCCGGAGAATGTCCAAGGCCGGCGGGG
GCCGGAGCAGCCACGGCATCCGGAGCTCGGGGACCAGCTCGGGGGTCCTGATGGTGGGCCCCAACTTCCG
CGTCGGCAAGAAGATCGGCTGCGGCAACTTCGGGGAGCTCCGCCTAGGAAAGAATCTCTATACAAATGAA
TACGTGGCTATCAAATTGGAGCCGATCAAGTCCCGGGCCCCGCAGCTGCACCTGGAGTACCGGTTCTACA
AGCAGCTCAGCGCCACAGAGGGCGTCCCTCAGGTCTACTACTTCGGTCCGTGCGGGAATTACAACGCCAT
GGTGCTGGAGCTGCTGGGGCCCAGCCTGGAGGACCTGTTCGACCTGTGCGACCGGACCTTCACGCTCAAG
ACGGTGCTGATGATCGCCATCCAGCTGATCACGCGCATGGAGTATGTGCACACCAAGAGCCTAATCTACC
GGGACGTGAAGCCCGAGAACTTCCTGGTGGGCCGCCCGGGGACCAAGCGGCAGCATGCCATCCACATCAT
CGACTTCGGGCTGGCCAAGGAGTACATCGACCCCGAGACCAAGAAGCACATCCCGTACCGCGAGCACAAG
AGCCTGACGGGCACGGCGCGCTACATGAGCATCAACACGCACCTGGGCAAGGAGCAGAGCCGCCGCGACG
ACCTGGAGGCGCTGGGCCACATGTTCATGTACTTCCTGCGCGGCAGCCTCCCCTGGCAGGGGCTCAAGGC
CGACACGCTCAAGGAGCGGTACCAGAAGATCGGGGACACCAAACGCGCCACGCCCATCGAGGTGCTCTGC
GAGAACTTCCCAGAGGAGATGGCCACGTACCTGCGCTATGTGCGGCGCCTGGACTTCTTCGAGAAGCCCG
ACTATGACTACCTGCGGAAGCTCTTCACCGACCTCTTCGACCGCAGTGGCTTCGTGTTCGACTATGAGTA
CGACTGGGCCGGGAAGCCCCTGCCGACCCCCATCGGCACCGTCCACACCGACCTGCCCTCCCAGCCTCAG
CTCCGGGACAAAACCCAGCCGCACAGCAAAAACCAGGCGTTGAACTCCACCAACGGGGAGCTGAATGCGG
ACGACCCCACGGCCGGCCACTCCAACGCCCCGATCACAGCGCCTGCAGAGGTGGAGGTGGCCGATGAAAC
CAAATGCTGCTGTTTCTTCAAGAGGAGAAAGAGAAAATCGCTGCAGCGACACAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC202145 protein sequence
Red=Cloning site Green=Tags(s)

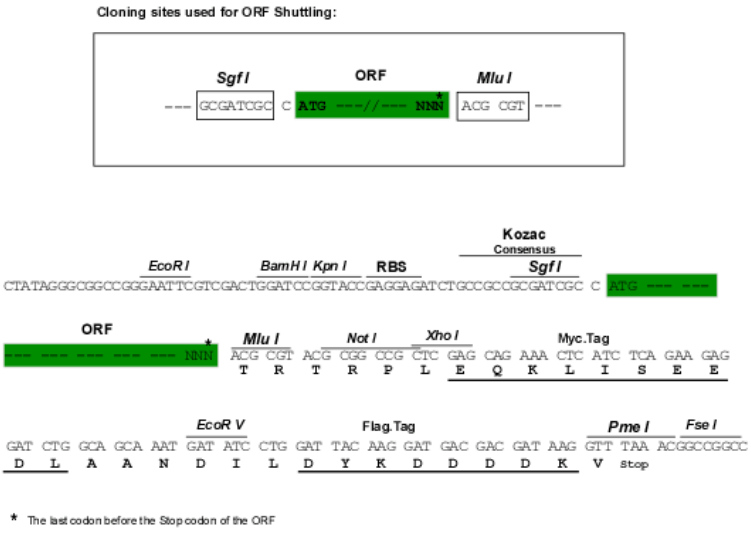
MDFDKKGGKGETEEGRRMSKAGGGRSSHGIRSSGTSSGVLMVGPNFRVGKKIGCGNFGELRLGKNLYTNE
YVAIKLEPIKSRAPQLHLEYRFYKQLSATEGVPQVYYFGPCGNYNAMVLELLGPSLEDLFDLCDRTFTLK
TVLMIAIQLITRMEYVHTKSLIYRDVKPENFLVGRPGTKRQHAIHIIDFGLAKEYIDPETKKHIPYREHK
SLTGTARYMSINTHLGKEQSRRDDLEALGHMFMYFLRGSLPWQGLKADTLKERYQKIGDTKRATPIEVLC
ENFPEEMATYLRYVRRLDFFEKPDYDYLRKLFTDLFDRSGFVFDYEYDWAGKPLPTPIGTVHTDLPSQPQ
LRDKTQPHSKNQALNSTNGELNADDPTAGHSNAPITAPAEVEVADETKCCCFFKRRKRKSLQRHK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6011_b12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001319

ORF Size: 1245 bp

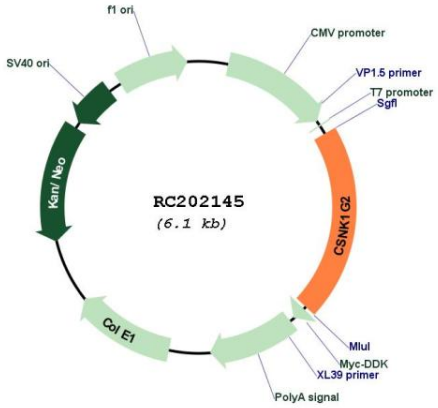
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

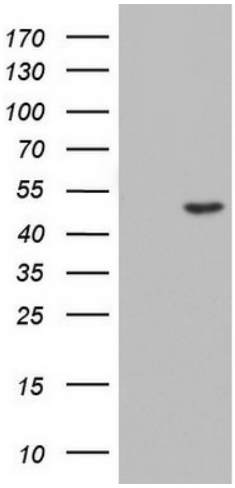
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	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_001319.5, NP_001310.2
RefSeq Size:	2921 bp
RefSeq ORF:	1248 bp
Locus ID:	1455
UniProt ID:	P78368
Cytogenetics:	19p13.3
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Hedgehog signaling pathway
MW:	47.4 kDa
Gene Summary:	Serine/threonine-protein kinase. 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 COL4A3BP/CERT, MTA1 and SMAD3. Involved in brain development and vesicular trafficking and neurotransmitter releasing from small synaptic vesicles. Regulates fast synaptic transmission mediated by glutamate. SMAD3 phosphorylation promotes its ligand-dependent ubiquitination and subsequent proteasome degradation, thus inhibiting SMAD3-mediated TGF-beta responses. Hyperphosphorylation of the serine-repeat motif of COL4A3BP/CERT leads to its inactivation by dissociation from the Golgi complex, thus down-regulating ER-to-Golgi transport of ceramide and sphingomyelin synthesis. Triggers PER1 proteasomal degradation probably through phosphorylation.[UniProtKB/Swiss-Prot Function]

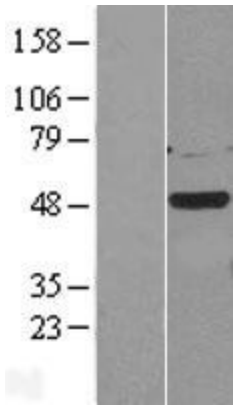
Product images:



Circular map for RC202145



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CSNK1G2 (Cat# RC202145, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CSNK1G2(Cat# [TA802852]). Positive lysates [LY400524] (100ug) and [LC400524] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400524]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202145 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).