

Product datasheet for **RG217936**

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:	TurboGFP
Symbol:	Casein Kinase 1 alpha
Synonyms:	CK1; CK1a; CK1a; HEL-S-77p; HLCDGP1; PRO2975
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG217936 representing NM_001025105 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGAGTAGCAGCGGCTCCAAGGCTGAATTCATTGTGCGAGGGAAATATAAACTGGTACGGAAGATCG
GGTCTGGCTCCTTCGGGACATCTATTTGGCGATCAACATCACCAACGGCGAGGAAGTGGCAGTGAAGCT
AGAATCTCAGAAGGCCAGGCATCCCCAGTTGTGTACGAGAGCAAGCTCTATAAGATTCTCAAGGTGGG
GTTGGCATCCCCACATACGGTGGTATGGTCAGGAAAAAGACTACAATGTACTAGTCATGGATCTTCTGG
GACCTAGCCTCGAAGACCTTTCAATTTCTGTTCAAGAAGTTTACAATGAAAACGTACTTATGTTAGC
TGACCAGATGATCAGTAGAATTGAATATGTGCATACAAAGAATTTATACACAGAGACATTAACCAGAT
AACTTCCTAATGGGTATTGGCGTCACTGTAATAAGTGTTTAGAATCTCCAGTGGGGAAGAGGAAAAGAA
GCATGACTGTTAGTACTTCTCAGGACCCATCTTCTCAGGATTAACCAGTTATTCCTTATTGATTTTGG
TTTGGCCAAAAGTACAGAGACAACAGGACAAGGCAACACATACCATACAGAGAAGATAAAACCTCACT
GGCACTGCCCGATATGCTAGCATCAATGCACATCTTGGTATTGAGCAGAGTCGCCGAGATGACATGGAAT
CATTAGGATATGTTTTGATGATTTTAATAGAACCAGCCTGCCATGGCAAGGGCTAAAGGCTGCAACAAA
GAAACAAAATATGAAAAGATTAGTGAAAAGAAGATGTCCACGCCTGTTGAAGTTTTATGAAGGGTTT
CCTGCAGAAATTTGCGATGTACTTAACTATTGTCGTGGGCTACGCTTTGAGGAAGCCCAGATTACATGT
ATCTGAGGCAGCTATTCCGATTCTTTTCAGGACCCTGAACCATCAATATGACTACACATTTGATTGGAC
AATGTTAAAGCAGAAAGCAGCACAGCAGGCAGCCTCTTCCAGTGGCAGGGTCAGCAGGCCCAAACCCCC
ACAGGCAAGCAAACACTGACAAAACCAAGAGTAACATGAAAGTTTC

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG217936 representing NM_001025105
 Red=Cloning site Green=Tags(s)

MASSSGSKAEFIVGGKYKLVKIGSGSFGDIYLAINITNGEEVAVKLESQKARHPQLLYESKLYKILQGG
 VGIPHIRWYQEKDYNVLMDDLGPSEDLFNFCRRFTMKTVLMADQMISRIEYVHTKNFIHRDIKPD
 NFLMGIQRHCNKCLESVPVGRKRSMSTVSTSQDPSFSGLNQLFLIDFGLAKKYRDNRTQHIPYREDKNLT
 GTARYASINAHLGIEQSRDDMESLGYVLMYFNRTSLPWQGLKAATKKQKYEKISEKKMSTPVEVLCKGF
 PAEFAMYLNYCRGLRFEEAPDYMYLRQLFRILFRTLNHQYDYTFDWTMLKQKAAQQAASSSGGQQAQTP
 TGKQTDKTKSNMKGK

TRTRPLE - GFP Tag - V

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:

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_001025105.3](#)

RefSeq Size: 3149 bp

RefSeq ORF: 1098 bp

Locus ID: 1452

UniProt ID: [P48729](#)

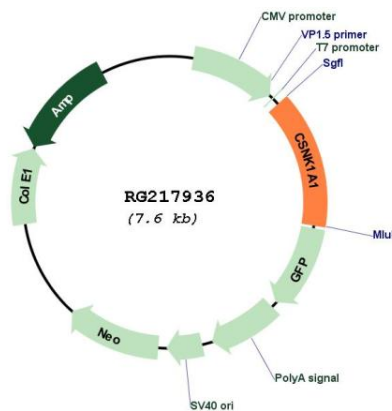
Cytogenetics: 5q32

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

Protein Pathways: Hedgehog signaling pathway, Wnt signaling pathway

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 RG217936