

Product datasheet for **RG233621**

Casein Kinase 1 alpha (CSNK1A1) (NM_001271742) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Casein Kinase 1 alpha (CSNK1A1) (NM_001271742) 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: | >RG233621 representing NM_001271742 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCTTCTGGGACCTAGCCTCGAAGACCTCTCAATTTCTGTTCAAGAAGGTTCAACAATGAAAACCTG
TACTTATGTTAGCTGACCAGATGATCAGTAGAATTGAATATGTGCATACAAGAATTTTATACACAGAGA
CATTAACCAGATAACTCCTAATGGGTATTGGGCGTCACTGTAATAAGTGTGTTAGAAATCTCCAGTGGG
AAGAGGAAAAGAAGCATGACTGTTAGTACTTCTCAGGACCCATCTTTCTCAGGATTAACCAGTTATTCC
TTATTGATTTTGGTTTGGCCAAAAGTACAGAGACAACAGGACAAGCAACACATACCATACAGAGAAGA
TAAAAACCTCACTGGCACTGCCGATATGCTAGCATCAATGCACATCTTGGTATTGAGCAGAGTCCGCGA
GATGACATGGAATCATTAGGATATGTTTTGATGTATTTAATAGAACCAGCCTGCCATGGCAAGGGCTAA
AGGCTGCAACAAAGAAACAAAAATATGAAAAGATTAGTAAAAGAAGATGTCCACGCCTGTTGAAGTTTT
ATGTAAGGGGTTTCTGCAGAAATTTGCGATGTACTTAACTATTGTGCGGGCTACGCTTTGAGGAAGCC
CCAGATTACATGTATCTGAGGCAGCTATTCCGATTCTTTTCAGGACCCTGAACCATCAATGACTACA
CATTTGATTGGACAATGTTAAAGCAGAAAGCAGCACAGGCAGCCCTCTCCAGTGGGCAGGGTCAGCA
GGCCAAAACCCACAGGCAAGCAAACCTGACAAAACCAAGAGTAACATGAAAGGTTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

Protein Sequence: >RG233621 representing NM_001271742
 Red=Cloning site Green=Tags(s)

MDLLGPSLEDLFNFCSSRRFTMKTVLMLADQMISRIEYVHTKNFIHRDIKPDNFLMGIGRHCNKCLESPVG
 KRKRSMTVSTSQDPSFSGLNQLFLIDFGLAKKYRDNRTQHIPYREDKNLTGTARYASINAHLGIEQSRR
 DDMESLGYVLMYFNRTSLPWQGLKAATKKQKYEKISEKKMSTPVEVLCKGFPAEFAMYLNYCRGLRFEEA
 PDYMYLRQLFRILFRTLNHQYDYTFDWTMLKQKAAQQAASSSSGQQAQTPTGKQTDKTKSNMKGF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001271742

ORF Size: 828 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_001271742.2](#)

RefSeq Size: 2100 bp

RefSeq ORF: 831 bp

Locus ID: 1452

UniProt ID: [P48729](#)

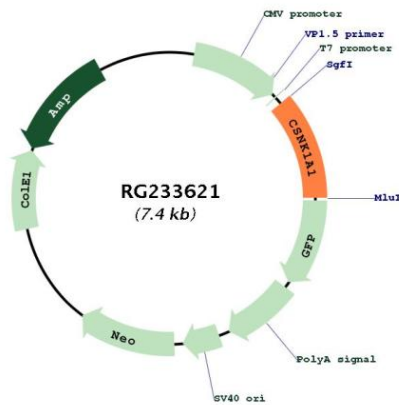
Cytogenetics: 5q32

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 RG233621