

Product datasheet for **RG233767**

Casein Kinase 1 alpha (CSNK1A1) (NM_001271741) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Casein Kinase 1 alpha (CSNK1A1) (NM_001271741) 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:	>RG233767 representing NM_001271741 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGAGTAGCAGCGGCTCCAAGGCTGAATTCATTGTCTGGAGGGAAATATAAACTGGTACGGAAGATCG
GGTCTGGCTCCTTCGGGGACATCTATTTGGCGATCAACATCACCAACGGCGAGGAAGTGGCAGTGAAGCT
AGAATCTCAGAAGGCCAGGCATCCCCAGTTGCTGTACGAGAGCAAGCTCTATAAGATTCTCAAGGTGGG
GTTGGCATCCCCACATACGGTGGTATGGTCAGGAAAAAGACTACAATGTACTAGTCATGGATCTTCTGG
GACCTAGCCTCGAAGACCTTTCAATTTCTGTTCAAGAAGTTTACAATGAAAACGTACTTATGTTAGC
TGACCAGATGATCAGTAGAATTGAATATGTGCATACAAAGAATTTTATACACAGAGACATTAACCAGAT
AACTTCCTAATGGGTATTGGGCGTCACTGTAATAAGTTATTCCTTATTGATTTTGGTTTGGCCAAAAAGT
ACAGAGACAACAGGACAAGGCAACACATACCATACAGAGAAGATAAAAACCTCACTGGCACTGCCGATA
TGCTAGCATCAATGCACATCTTGGTATTGAGCAGAGTCGCCGAGATGACATGGAATCATTAGGATATGTT
TTGATGATTTTAAATAGAACCAGCCTGCCATGGCAAGGGCTAAAGGCTGCAACAAAGAAACAAAAATATG
AAAAGATTAGTAAAAGAAGATGTCCACGCCTGTTGAAGTTTTATGTAAGGGGTTTCTGCAGAATTTGC
GATGTACTTAACTATTGTCGTGGGCTACGCTTTGAGGAAGCCCCAGATTACATGTATCTGAGGCAGCTA
TTCCGCATTCTTTTCAGGACCCTGAACCATCAATATGACTACACATTTGATTGGACAATGTTAAAGCAGA
AAGCAGCACAGCAGGCAGCCTCTCCAGTGGCAGGGTCAGCAGGCCAAACCCACAGGTTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG233767 representing NM_001271741
Red=Cloning site Green=Tags(s)

MASSSGSKAEFIVGGKYKLVKIGSGSFGDIYLAINITNGEEVAVKLESQKARHPQLLYESKLYKILQGG
 VGIPHIRWYQEKDYNVLMDDLGPSLEDLNFCSRFTMKTVLMADQMISRIEYVHTKNFIHRDIKPD
 NFLMGIGRHCNKLFLIDFGLAKKYRDNRTQHIPYREDKNLTGTARYASINAHLGIEQSRDDMESLGYV
 LMYFNRTSLPWQGLKAATKKQKYEKISEKKMSTPVEVLCKGFPAEFAMYLNYCRGLRFEEAPDYMRLQL
 FRILFRTLNHQYDYTFDWTMLKQKAAQQAASSSGQGQQAQTPTGF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001271741

ORF Size: 975 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_001271741.2](#)

RefSeq Size: 2541 bp

RefSeq ORF: 978 bp

Locus ID: 1452

UniProt ID: [P48729](#)

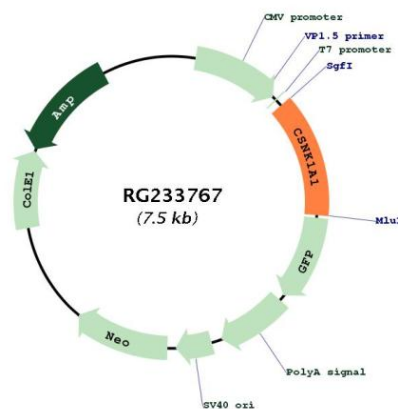
Cytogenetics: 5q32

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 RG233767