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Product datasheet for RC210758

CSK (NM_004383) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CSK (NM_004383) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CSK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC210758 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCAGCAATACAGGCCGCCTGGCCATCCGGTACAGAATGTATTGCCAAGTACAACTTCCACGGCACTG
CCGAGCAGGACCTGCCCTTCTGCAAAGGAGACGTGCTCACCATTGTGGCCGTCACCAAGGACCCCAACTG
GTACAAAGCCAAAAACAAGGTGGGCCGTGAGGGCATCATCCCAGCCAACTACGTCCAGAAGCGGGAGGGC
GTGAAGGCGGGTACCAAACTCAGCCTCATGCCTTGGTTCCACGGCAAGATCACACGGGAGCAGGCTGAGC
GGCTTCTGTACCCGCCGGAGACAGGCCTGTTCCTGGTGCGGGAGAGCACCAACTACCCCGGAGACTACAC
GCTGTGCGTGAGCTGCGACGGCAAGGTGGAGCACTACCGCATCATGTACCATGCCAGCAAGCTCAGCATC
GACGAGGAGGTGTACTTTGAGAACCTCATGCAGCTGGTGGAGCACTACACCTCAGACGCAGATGGACTCT
GTACGCGCCTCATTAAACCAAAGGTCATGGAGGGCACAGTGGCGGCCCAGGATGAGTTCTACCGCAGCGG
CTGGGCCCTGAACATGAAGGAGCTGAAGCTGCTGCAGACCATCGGGAAGGGGGAGTTCGGAGACGTGATG
CTGGGCGATTACCGAGGGAACAAAGTCGCCGTCAAGTGCATTAAGAACGACGCCACTGCCCAGGCCTTCC
TGGCTGAAGCCTCAGTCATGACGCAACTGCGGCATAGCAACCTGGTGCAGCTCCTGGGCGTGATCGTGGA
GGAGAAGGGCGGGCTCTACATCGTCACTGAGTACATGGCCAAGGGGAGCCTTGTGGACTACCTGCGGTCT
AGGGGTCGGTCAGTGCTGGGCGGAGACTGTCTCCTCAAGTTCTCGCTAGATGTCTGCGAGGCCATGGAAT
ACCTGGAGGGCAACAATTTCGTGCATCGAGACCTGGCTGCCCGCAATGTGCTGGTGTCTGAGGACAACGT
GGCCAAGGTCAGCGACTTTGGTCTCACCAAGGAGGCGTCCAGCACCCAGGACACGGGCAAGCTGCCAGTC
AAGTGGACAGCCCCTGAGGCCCTGAGAGAGAAGAAATTCTCCACTAAGTCTGACGTGTGGAGTTTCGGAA
TCCTTCTCTGGGAAATCTACTCCTTTGGGCGAGTGCCTTATCCAAGAATTCCCCTGAAGGACGTCGTCCC
TCGGGTGGAGAAGGGCTACAAGATGGATGCCCCCGACGGCTGCCCGCCCGCAGTCTATGAAGTCATGAAG
AACTGCTGGCACCTGGACGCCGCCATGCGGCCCTCCTTCCTACAGCTCCGAGAGCAGCTTGAGCACATCA
AAACCCACGAGCTGCACCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210758 protein sequence
Red=Cloning site Green=Tags(s)

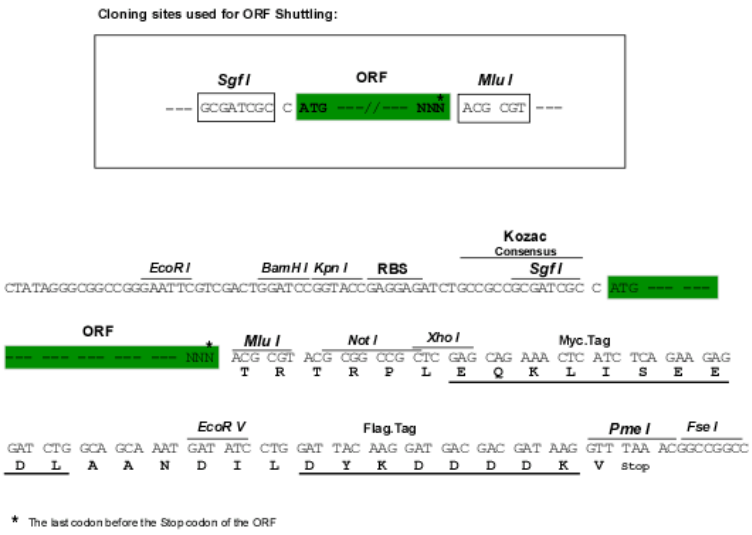
MSAIQAAWPSGTECIAKYNFHGTAEQDLPFCKGDVLTIVAVTKDPNWYKAKNKVGREGIIPANYVQKREG
VKAGTKLSLMPWFHGKITREQAERLLYPPETGLFLVRESTNYPGDYTLCVSCDGKVEHYRIMYHASKLSI
DEEVYFENLMQLVEHYTSDADGLCTRLIKPKVMEGTVAAQDEFYRSGWALNMKELKLLQTIGKGEFGDVM
LGDYRGNKVAVKCIKNDATAQAFLAEASVMTQLRHSNLVQLLGVIVEEKGGLYIVTEYMAKGSLVDYLRS
RGRSVLGGDCLLKFSLDVCEAMEYLEGNNFVHRDLAARNVLVSEDNVAKVSDFGLTKEASSTQDTGKLPV
KWTAPEALREKKFSTKSDVWSFGILLWEIYSFGRVPYPRIPLKDVVPRVEKGYKMDAPDGCPPAVYEVMK
NCWHLDAAMRPSFLQLREQLEHIKTHELHL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6195_h02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004383

ORF Size: 1350 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_004383.2

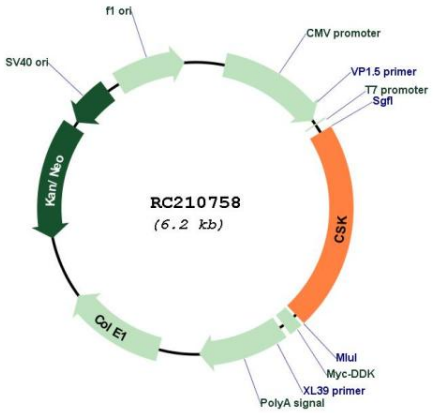
RefSeq Size: 2755 bp

RefSeq ORF: 1353 bp

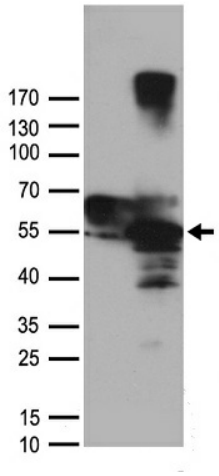
Locus ID: 1445

UniProt ID:	P41240
Cytogenetics:	15q24.1
Domains:	pkinase, SH2, TyrKc, SH3, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Chemokine signaling pathway, Epithelial cell signaling in Helicobacter pylori infection, Neurotrophin signaling pathway, Regulation of actin cytoskeleton
MW:	50.7 kDa
Gene Summary:	The protein encoded by this gene is involved in multiple pathways, including the regulation of Src family kinases. It plays an important role in T-cell activation through its association with the protein encoded by the protein tyrosine phosphatase, non-receptor type 22 (PTPN22) gene. This protein also phosphorylates C-terminal tyrosine residues on multiple substrates, including the protein encoded by the SRC proto-oncogene, non-receptor tyrosine kinase gene. Phosphorylation suppresses the kinase activity of the Src family tyrosine kinases. An intronic polymorphism (rs34933034) in this gene has been found to affect B-cell activation and is associated with systemic lupus erythematosus (SLE). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2017]

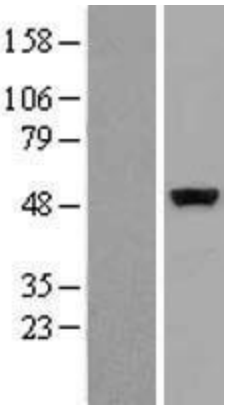
Product images:



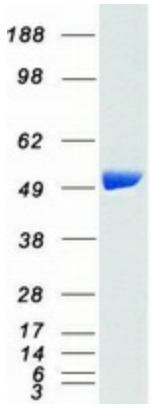
Circular map for RC210758



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CSK (Cat# RC210758, 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-CSK antibody (Cat# [TA890053]). Positive lysates [LY401395] (100ug) and [LC401395] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY426695]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225740] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CSK protein (Cat# [TP310758]). The protein was produced from HEK293T cells transfected with CSK cDNA clone (Cat# RC210758) using MegaTran 2.0 (Cat# [TT210002]).