Active Recombinant Full Length Human CSK Protein, C-Flag-tagged

Cat. No. CSK-657HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human CSK Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	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.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	CSK activity verified in a biochemical assay: CSK (c-src tyrosine kinase) activity was measured in a homogeneous time-resolved fluorescent (HTRF®) assay. CSK is a tyrosine kinase known to phosphorylate LCK, FYN and LYN. Varying concentrations

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	of CSK were added to a reaction mix containing ATP and a biotinylated kinase substrate and the reaction mixture was incubated to allow the protein to phosphorylate the tyrosine residue in the substrate. HTRF detection reagents were then added, and the time-resolved fluorescent signal was measured on a Flexstation 3 microplate reader. The time resolved fluorescent signal is expressed as “delta R” or “ΔR” and is a ratio calculated from the fluorescent emission intensities of the donor and acceptor fluors.
Molecular Mass	50.5 kDa
AA Sequence	MSAIQAAWPSGTECIAKYNFHGTAEQDLPFCKGDVLTIVAVTKDPNWYKAKNKVGR EGIIPANYVQKREG VKAGTKLSLMPWFHGKITREQAERLLYPPETGLFLVRESTNYP GDYTLCVSCDGKVEHYRIMYHASKLSI DEEVYFENLMQLVEHYTSDADGLCTRLIKP KVMEGTVAAQDEFYRSGWALNMKELKLLQTIGKGEFGDVM LGDYRGNKVAVKCIK NDATAQAFLAEASVMTQLRHSNLVQLLGVIVEEKGGLYIVTEYMAKGSLVDYLRS R GRSVLGGDCLLKFSLDVCEAMEYLEGNNFVHRDLAARNVLVSEDNVAKVSDFGLTK EASSTQDTGKLPV KWTAPEALREKKFSTKSDVWSFGILLWEIYSFGRVPYPRIPLKD VVPRVEKGYKMDAPDGCPPAVYEVMK NCWHLDAAMRPSFLQLREQLEHIKTHELHLTRTRPLEQKLISEEDLAANDILDYKDDD DKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.

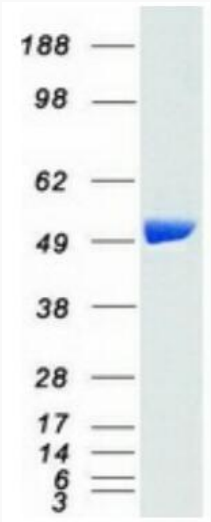
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Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome, Protein Kinase
Protein Pathways	Chemokine signaling pathway, Epithelial cell signaling in Helicobacter pylori infection, Neurotrophin signaling pathway, Regulation of actin cytoskeleton
Full Length	Full L.

GENE INFORMATION

Gene Name	CSK C-terminal Src kinase [Homo sapiens (human)]
Official Symbol	CSK
Synonyms	MGC117393
Gene ID	1445
mRNA Refseq	NM_004383.3
Protein Refseq	NP_004374.1
MIM	124095
UniProt ID	P41240

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Coomassie blue staining of purified CSK protein.

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