

Active Recombinant Human C-src Tyrosine Kinase

Cat. No. CSK-170H Lot. No. (See product label)

SPECIFICATION

Species Human

Source E.coli

Description

The C-terminal Src kinase (Csk) phosphorylates and downregulates Src family tyrosine kinases. Cell transformation by src oncoproteins is caused by several oncogenic mechanisms, which interfere with this phosphorylation. The CSK gene could therefore potentially function as an antioncogene. The Csk-binding protein (Cbp) localizes Csk close to its substrates at the plasma membrane, and increases the specific activity of the kinase. It has been reported prior to occurrence of neoplastic lesions in the colon carcinogenesis; the tumor suppressor gene C-terminal Src kinase (Csk) was down-regulated with a concomitant increase in Src activity. Furthermore, pharmacological or genetic (RNA interference) inhibition of Csk resulted in increased proliferation in colon cancer cell lines through the mitogen-activated protein kinase dependent pathway. Csk, which phosphorylates tyrosine residues in the negative regulatory sites of Src family kinases, downregulated Fyn- and Lck-mediated stimulation of the serum response element and Fyn-mediated enhancement of IL-2 promoter activity.

Application

100 ng of CSK are sufficient to phosphorylate 1 ug of heat-inactivated nuclear or cytoplasmic extract at 30°C for 30 mins.

Usage

For in vitro use only.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Form	Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.
Activity	20-200 ng are sufficient for an in vitro transcription assay and 100 ng are sufficient for a protein-protein interaction assay.
Purity	> 95% by SDS-PAGE.
Storage	Quality guaranteed for 12 months, Store at -80°C. Avoid freeze / thaw cycles.

GENE INFORMATION

Gene Name	CSK c-src tyrosine kinase [Homo sapiens]
Synonyms	CSK; c-src tyrosine kinase; MGC117393; EC 2.7.10.2; Tyrosine-protein kinase CSK; C-SRC kinase; Protein-tyrosine kinase CYL
Gene ID	1445
mRNA Refseq	NM_001127190
Protein Refseq	NP_001120662
MIM	124095
UniProt ID	P41240
Chromosome Location	15q24.1
Pathway	Chemokine signaling pathway; Epithelial cell signaling in Helicobacter pylori infection;

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Neurotrophin signaling pathway; Regulation of actin cytoskeleton; Integrin cell surface interactions; Signaling by EGFR; Signaling in Immune system

Function

ATP binding; non-membrane spanning protein tyrosine kinase activity; nucleotide binding; protein C-terminus binding; transferase activity

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