

#4980 Store at -20°C

## Csk (C74C1) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, W-S	H M R Mk Pg	Endogenous	50	Rabbit IgG	#P41240	1445

### Product Usage Information

#### Application

Western Blotting

Simple Western™

#### Dilution

1:1000

1:10 - 1:50

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Specificity / Sensitivity

Csk (C74C1) Rabbit mAb detects endogenous levels of total Csk protein. This antibody does not cross-react with other proteins.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding amino acid residue Val399 of human Csk.

### Background

Carboxy-terminal Src kinase (Csk) is a ubiquitously expressed nonreceptor tyrosine kinase that negatively regulates the Src family kinases (SFKs) by phosphorylation of the SFK carboxy-terminal tyrosine (1,2). Phosphorylated carboxy-terminal tyrosine binds to the SH2 domain of SFK intramolecularly and leads to folding and inactivation of the SFK (3). This Csk-catalyzed SFK tyrosine phosphorylation is highly specific and exclusive. The SFK carboxy-terminal tyrosine is the only known physiological substrate of Csk (4). Csk consists of an SH2, an SH3, and a kinase domain. There is evidence that the SH2 and SH3 domains are essential for the regulation of SFK, and Csk can be recruited to the membrane where SFKs are in an active state. This process is mediated by a Csk-binding protein (Cbp, also called PAG), which binds tightly to the SH2 domain of Csk (5). Activation of SFK by extracellular stimuli leads to the tyrosine phosphorylation of Cbp, generating docking sites for Csk. The recruitment of Csk forms a feedback mechanism for termination of SFK function (6).

### Background References

1. Nada, S. et al. (1991) *Nature* 351, 69-72.
2. Nada, S. et al. (1993) *Cell* 73, 1125-35.
3. Lee, S. et al. (2003) *Proc Natl Acad Sci U S A* 100, 14707-12.
4. Imamoto, A. and Soriano, P. (1993) *Cell* 73, 1117-24.
5. Kawabuchi, M. et al. (2000) *Nature* 404, 999-1003.
6. Matsuoka, H. et al. (2004) *J Biol Chem* 279, 5975-83.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**WB:** Western Blotting **W-S:** Simple Western™

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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