

#4980 Store at -20°C

Csk (C74C1) Rabbit mAb



✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, M, R, Mk	50 kDa	Rabbit IgG**

Background: Carboxy-terminal Src kinase (Csk) is a ubiquitously expressed nonreceptor tyrosine kinase that negatively regulates the Src family kinases (SFK) 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).

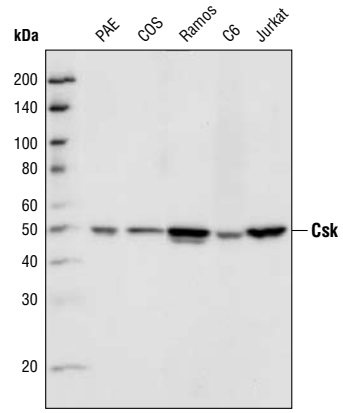
Csk consists of an SH2, an SH3, and a kinase domain. There is evidence that the SH2 and SH3 domains are essential for the regulation of SFK, and Csk can be recruited to the membrane where SFKs are in an active state. This process is mediated by a Csk-binding protein (Cbp, also called PAG), which binds 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).

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 rabbits with a synthetic peptide (KLH-coupled) corresponding to residues surrounding amino acid residue Val399 of human Csk.

Background References:

- (1) Nada, S. et al. (1991) *Nature* 351, 69–72.
- (2) Nada, S. et al. (1993) *Cell* 73, 1125–1135.
- (3) Lee, S. et al. (2003) *Proc. Natl. Acad. Sci. USA* 100, 14707–14712.
- (4) Imamoto, A. and Soriano, P. (1993) *Cell* 73, 1117–1124.
- (5) Kawabuchi, M. et al. (2000) *Nature* 404, 999–1003.
- (6) Matsuoka, H. et al. (2004) *J. Biol. Chem.* 279, 5975–5983.



Western blot analysis of extracts from various cell lines using Csk (C74C1) Rabbit mAb.

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.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:
Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry IC—Immunocytochemistry IF—Immunofluorescence F—Flow cytometry E—ELISA D—DELFIATM
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken X—Xenopus Z—zebra fish B—bovine All—all species expected
Species enclosed in parentheses are predicted to react based on 100% sequence homology.