

eEF2k Antibody

✓ 100 µl
(10 western blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 03/18/10

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.	Source
W, IP, IF-IC Endogenous	H, R, Mk	105 kDa	Rabbit**

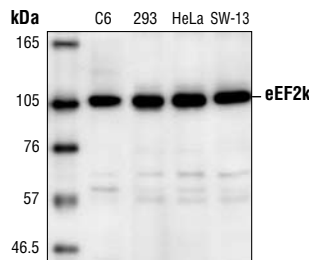
Background: Eukaryotic elongation factor 2 kinase (eEF2k) phosphorylates and inactivates eEF2, resulting in the inhibition of peptide-chain elongation (1). eEF2k is normally dependent on Ca²⁺ ions and calmodulin (2,3). It can be activated by PKA in response to elevated cAMP levels (4-6), which are generally increased in stress- or starvation-related conditions. eEF2k can also be regulated in response to a wide range of stimuli that promote cell growth and protein synthesis. This involves the phosphorylation of eEF2k by p90RSK and p70 S6 kinase at Ser366 or by SAPK4/p38δ at Ser359, leading to the inactivation of eEF2k (7,8), which facilitates the dephosphorylation of eEF2, and thus promotes translation.

Specificity/Sensitivity: eEF2k Antibody detects endogenous levels of total eEF2k independent of phosphorylation.

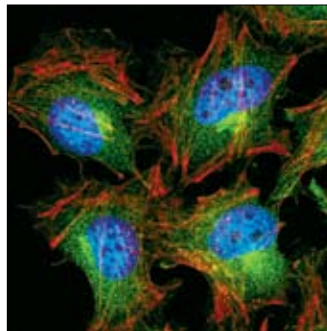
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding the N-terminus of human eEF2k. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Ryazanov, A.G. et al. (1997) *Proc. Natl. Acad. Sci. USA* 94, 4884-4889.
- (2) Nairn, A.C. et al. (1985) *Proc. Natl. Acad. Sci. USA* 82, 7839-7943.
- (3) Palfrey, H.C. et al. (1987) *J. Biol. Chem.* 262, 9785-9792.
- (4) Redpath, N.T. et al. (1993) *Biochem. J.* 293, 31-34.
- (5) Diggle, T.A. et al. (1998) *Biochem. J.* 336, 525-529.
- (6) Hovland, R. et al. (1999) *FEBS Lett.* 444, 97-101.
- (7) Wang, X. et al. (2001) *EMBO J.* 20, 4370-4379.
- (8) Knebel, A. et al. (2001) *EMBO J.* 20, 4360-4369.



Western blot analysis of extracts from C6, 293, HeLa and SW-13 cells using eEF2k Antibody.



Confocal immunofluorescent analysis of HeLa cells using eEF2k Antibody (green). Actin filaments were labeled with DY-554 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Entrez-Gene ID #29904
Swiss-Prot Acc. #000418

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

*Species cross-reactivity is determined by western blot.

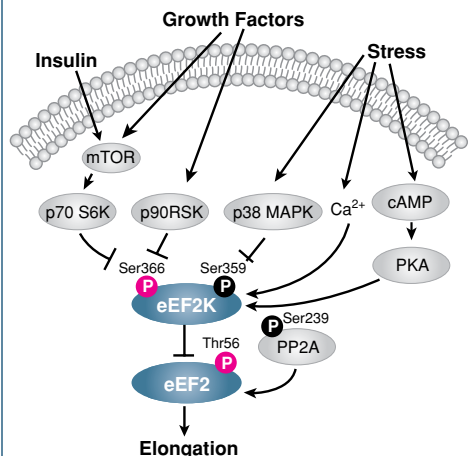
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:200
Immunofluorescence (IF-IC)	1:100

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.



DRAQ5® is a registered trademark of Biostatus Limited.

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.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.