

#2490 Store at -20°C

eIF4A1 Antibody

✓ 100 µl
(10 western blots)

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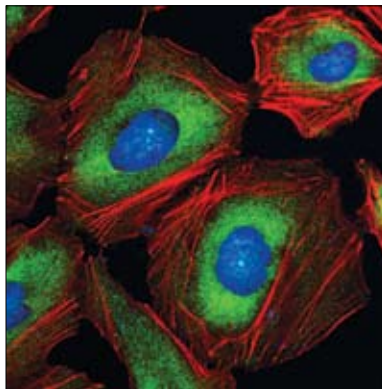
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC	H, M, R, Mk	48 kDa	Rabbit**

Background: A variety of factors contribute to the important biological event of initiation of translation. The eIF4F complex of translation initiation factors binds to the 5' m⁷ GTP cap to open up the mRNA secondary structure and allow small ribosome subunit binding (1). eIF4A, an eIF4 complex component that acts as an ATP-dependent RNA helicase, unwinds the secondary structure of the 5' mRNA untranslated region to mediate ribosome binding (2,3). In addition, eIF4A has recently been shown to repress Dpp/BMP signalling in a translation-independent manner in *Drosophila* (4,5).

Specificity/Sensitivity: eIF4A1 Antibody detects endogenous levels of total eIF4A1 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to a sequence around Gly12 of human eIF4A1. Antibodies are purified by protein A and peptide affinity chromatography.



Confocal immunofluorescent analysis of HeLa cells using eIF4A1 Antibody (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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:

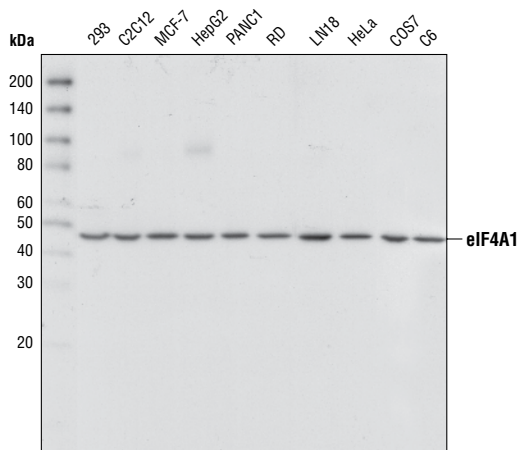
Western blotting	1:1000
Immunofluorescence (IF-IC)	1:50

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.

Background References:

- (1) Rogers, G.W. et al. (2001) *J. Biol. Chem.* 276, 12598–12608.
- (2) Rogers, G.W. et al. (1999) *J. Biol. Chem.* 274, 12236–12244.
- (3) Svitkin, Y.V. et al. (2001) *RNA* 7, 382–394.
- (4) Li, J. and Li, W.X. (2006) *Nat. Cell Biol.* 8, 1407–1414.
- (5) Affolter, M. and Pyrowolakis, G. (2006) *Nat. Cell Biol.* 8, 1319–1321.



Western blot analysis of extracts from various cell lines using eIF4A1 Antibody.

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.