

**eIF4A1 Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	48	Rabbit	#P60842	1973

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**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.

**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.

**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' m<sup>7</sup> 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).

**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.

**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**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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