

eRF1 Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	50	Rabbit	#P62495	2107

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

eRF1 Antibody recognizes endogenous levels of total eRF1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Phe117 of human eRF1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Efficient termination of mRNA translation in eukaryotes is dependent upon a complex of two polypeptide release factors, eRF1 and eRF3 (1). The eukaryotic translation termination factor 1 (eRF1, ETF1) structurally resembles tRNA, which allows it to participate in stop codon recognition as well as hydrolysis of the peptidyl-tRNA conjugate (2,3). The eRF1 protein contains three functionally distinct domains, including an amino-terminal domain that harbors discrete motifs that participate in stop codon recognition (4,5). Lysine hydroxylation within the amino-terminal domain is required for efficient termination of mRNA translation (6). The central region of eRF1 harbors a GGQ motif that facilitates hydrolysis of peptidyl-tRNA conjugates (7), while its carboxy terminus participates in eRF3 binding (8).

Background References

1. Zhouravleva, G. et al. (1995) *EMBO J* 14, 4065-72.
2. Song, H. et al. (2000) *Cell* 100, 311-21.
3. Cheng, Z. et al. (2009) *Genes Dev* 23, 1106-18.
4. Bulygin, K.N. et al. (2010) *RNA* 16, 1902-14.
5. Frolova, L. et al. (2002) *RNA* 8, 129-36.
6. Feng, T. et al. (2014) *Mol Cell* 53, 645-54.
7. Frolova, L.Y. et al. (1999) *RNA* 5, 1014-20.
8. Merkulova, T.I. et al. (1999) *FEBS Lett* 443, 41-7.

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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