

#9435 Store at -20C

# UPF1 Antibody



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| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|-----------|---------|-------------|-----------------|
| WB, IP        | H M R Mk    | Endogenous   | 140       | Rabbit  | #Q92900     | 5976            |

## Product Usage Information

### Application

Western Blotting  
Immunoprecipitation

### Dilution

1:1000  
1:50

## 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

UPF1 Antibody detects endogenous levels of total UPF1 protein.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human UPF1. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

UPF1 was identified as an active component in nonsense-mediated mRNA decay (NMD), an mRNA surveillance mechanism in eukaryotic cells that degrades mRNAs containing premature termination codons (1). UPF1 was found to be an ATP-dependent RNA helicase in the cytoplasm (2) and was later shown to be a component of cytoplasmic P-bodies (3). UPF1 phosphorylation mediates the repression of translation that accompanies NMD, allowing mRNA accessibility to the NMD machinery (4). Two other active components of NMD, UPF2 and UPF3, were also identified and described as having perinuclear and nucleocytoplasmic localization, respectively (5).

## Background References

1. Leeds, P. et al. (1991) *Genes Dev* 5, 2303-14.
2. Weng, Y. et al. (1996) *Mol Cell Biol* 16, 5477-90.
3. Bruno, I. and Wilkinson, M.F. (2006) *Cell* 125, 1036-8.
4. Isken, O. et al. (2008) *Cell* 133, 314-27.
5. Lykke-Andersen, J. et al. (2000) *Cell* 103, 1121-31.

## 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

**WB:** Western Blotting **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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