

# TPP2 Antibody



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<b>Applications:</b> W, IP	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 140	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P29144	<b>Entrez-Gene Id:</b> 7174
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## Product Usage Information

### Application

Western Blotting  
Immunoprecipitation

### Dilution

1:1000  
1:100

## 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

TPP2 Antibody recognizes endogenous levels of total TPP2 protein. This antibody cross-reacts with a 35 kDa protein of unknown identity in some lysates.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human TPP2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

Tripeptidyl-peptidase 2 (TPP2) is a well-conserved subtilisin-like amino peptidase that is expressed predominantly in the cytoplasmic compartment (1,2). The amino-terminal region of TPP2 harbors a catalytic triad that is characteristic of serine proteases and allows for TPP2 cleavage of tripeptides from the free amino terminus of oligopeptide substrates (3). TPP2 is a large (>5MDa) homooligomeric protease in which proteolytic activity is regulated by subunit oligomerization (4,5). While TPP2 plays a general role in amino acid homeostasis, research studies demonstrate that TPP2 is involved in MHC class I antigen presentation (6,7) and DNA-damage repair (8). TPP2 activity is required for the survival of Burkitt's lymphoma cells, suggesting a possible role for TPP2 in oncogenesis (9). Additional research studies show that TPP2 proteolytic activity is important for regulating lysosome abundance and glycolytic metabolism and that TPP2 deficiency leads to defects in adaptive immunity, innate immunity, and nervous system development (10).

## Background References

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- York, I.A. et al. (2006) *J Immunol* 177, 1434-43.
- Preta, G. et al. (2009) *Biochem Biophys Res Commun* 389, 575-9.
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## 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 **IP:** Immunoprecipitation

## Cross-Reactivity Key

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

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