

**PPIA Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP2940a****Specification**

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**PPIA Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P62937](#)**PPIA Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 5478**Other Names**

Peptidyl-prolyl cis-trans isomerase A, PPIase A, Cyclophilin A, Cyclosporin A-binding protein, Rotamase A, Peptidyl-prolyl cis-trans isomerase A, N-terminally processed, PPIA, CYPA

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP2940a](/products/AP2940a) was selected from the N-term region of human PPIA. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**PPIA Antibody (N-term) Blocking Peptide - Protein Information****Name** PPIA**Synonyms** CYPA**Function**

Catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides (PubMed: [2001362](http://www.uniprot.org/citations/2001362), PubMed: [20676357](http://www.uniprot.org/citations/20676357), PubMed: [21245143](http://www.uniprot.org/citations/21245143), PubMed: [25678563](http://www.uniprot.org/citations/25678563), PubMed: [21593166](http://www.uniprot.org/citations/21593166)). Exerts a strong chemotactic effect on leukocytes partly through activation of one of its membrane receptors BSG/CD147, initiating a signaling cascade that culminates in MAPK/ERK activation (PubMed: [11943775](http://www.uniprot.org/citations/11943775)).

PubMed:<a href="http://www.uniprot.org/citations/21245143" target="\_blank">21245143</a>). Activates endothelial cells (ECs) in a pro-inflammatory manner by stimulating activation of NF-kappa-B and ERK, JNK and p38 MAP-kinases and by inducing expression of adhesion molecules including SELE and VCAM1 (PubMed:<a href="http://www.uniprot.org/citations/15130913" target="\_blank">15130913</a>). Induces apoptosis in ECs by promoting the FOXO1-dependent expression of CCL2 and BCL2L1 which are involved in EC chemotaxis and apoptosis (PubMed:<a href="http://www.uniprot.org/citations/31063815" target="\_blank">31063815</a>). In response to oxidative stress, initiates proapoptotic and antiapoptotic signaling in ECs via activation of NF-kappa-B and AKT1 and up-regulation of antiapoptotic protein BCL2 (PubMed:<a href="http://www.uniprot.org/citations/23180369" target="\_blank">23180369</a>). Negatively regulates MAP3K5/ASK1 kinase activity, autophosphorylation and oxidative stress-induced apoptosis mediated by MAP3K5/ASK1 (PubMed:<a href="http://www.uniprot.org/citations/26095851" target="\_blank">26095851</a>). Necessary for the assembly of TARDBP in heterogeneous nuclear ribonucleoprotein (hnRNP) complexes and regulates TARDBP binding to RNA UG repeats and TARDBP-dependent expression of HDAC6, ATG7 and VCP which are involved in clearance of protein aggregates (PubMed:<a href="http://www.uniprot.org/citations/25678563" target="\_blank">25678563</a>). Plays an important role in platelet activation and aggregation (By similarity). Regulates calcium mobilization and integrin ITGA2B:ITGB3 bidirectional signaling via increased ROS production as well as by facilitating the interaction between integrin and the cell cytoskeleton (By similarity). Binds heparan sulfate glycosaminoglycans (PubMed:<a href="http://www.uniprot.org/citations/11943775" target="\_blank">11943775</a>). Inhibits replication of influenza A virus (IAV) (PubMed:<a href="http://www.uniprot.org/citations/19207730" target="\_blank">19207730</a>). Inhibits ITCH/AIP4-mediated ubiquitination of matrix protein 1 (M1) of IAV by impairing the interaction of ITCH/AIP4 with M1, followed by the suppression of the nuclear export of M1, and finally reduction of the replication of IAV (PubMed:<a href="http://www.uniprot.org/citations/30328013" target="\_blank">30328013</a>, PubMed:<a href="http://www.uniprot.org/citations/22347431" target="\_blank">22347431</a>).

#### Cellular Location

Cytoplasm. Secreted. Nucleus Note=Secretion occurs in response to oxidative stress in vascular smooth muscle through a vesicular secretory pathway that includes Rho GTPase signaling, actin remodeling, and myosin II activation

#### PPIA Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

#### PPIA Antibody (N-term) Blocking Peptide - Images

#### PPIA Antibody (N-term) Blocking Peptide - Background

PPIA is a member of the peptidyl-prolyl cis-trans isomerase (PPIase) family. PPIases catalyze the cis-trans isomerization of proline imidic peptide bonds in oligopeptides and accelerate the folding of proteins. This protein is a cyclosporin binding-protein and may play a role in cyclosporin A-mediated immunosuppression. The protein can also interact with several HIV proteins, including p55 gag, Vpr, and capsid protein, and has been shown to be necessary for the formation of infectious HIV virions.

#### PPIA Antibody (N-term) Blocking Peptide - References

Braaten,D., et.al., J. Virol. 71 (3), 2107-2113 (1997)