

Anti-Cyclophilin A Antibody
Catalog # ABO10768**Specification**

Anti-Cyclophilin A Antibody - Product Information

Application	WB, IHC
Primary Accession	P62937
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Peptidyl-prolyl cis-trans isomerase A(PPIA) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Cyclophilin A Antibody - Additional Information

Gene ID 5478

Other Names

Peptidyl-prolyl cis-trans isomerase A, PPlase A, 5.2.1.8, Cyclophilin A, Cyclosporin A-binding protein, Rotamase A, Peptidyl-prolyl cis-trans isomerase A, N-terminally processed, PPIA, CYPA

Calculated MW

18012 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Cytoplasm . Secreted . Secretion occurs in response to oxidative stress in vascular smooth muscle through a vesicular secretory pathway that involves actin remodeling and myosin II activation, and mediates ERK1/2 activation.

Protein Name

Peptidyl-prolyl cis-trans isomerase A(PPlase A)

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human Cyclophilin A(54-71aa HRIIPGFMCQGCDFTRHN), different from the related mouse and rat sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the cyclophilin-type PPlase family. PPlase A subfamily.

Anti-Cyclophilin A Antibody - Protein Information

Name PPIA

Synonyms CYPA

Function

Catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides (PubMed:2001362, PubMed:20676357, PubMed:21245143, PubMed:25678563, PubMed: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, PubMed:21245143). 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:15130913). Induces apoptosis in ECs by promoting the FOXO1-dependent expression of CCL2 and BCL2L1 which are involved in EC chemotaxis and apoptosis (PubMed:31063815). 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:23180369). Negatively regulates MAP3K5/ASK1 kinase activity, autophosphorylation and oxidative stress-induced apoptosis mediated by MAP3K5/ASK1 (PubMed:26095851). 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:25678563). 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:11943775). Inhibits replication of influenza A virus (IAV) (PubMed:19207730). 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:30328013, PubMed:22347431).

Cellular Location

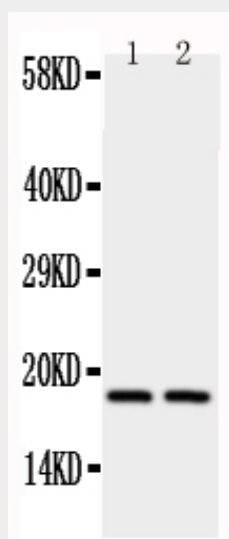
Cytoplasm. Secreted. Nucleus Note=Secretion occurs in response to oxidative stress in vascular smooth muscle through a vesicular secretory pathway that includes Rho GTPase signaling, actin remodeling, and myosin II activation

Anti-Cyclophilin A Antibody - Protocols

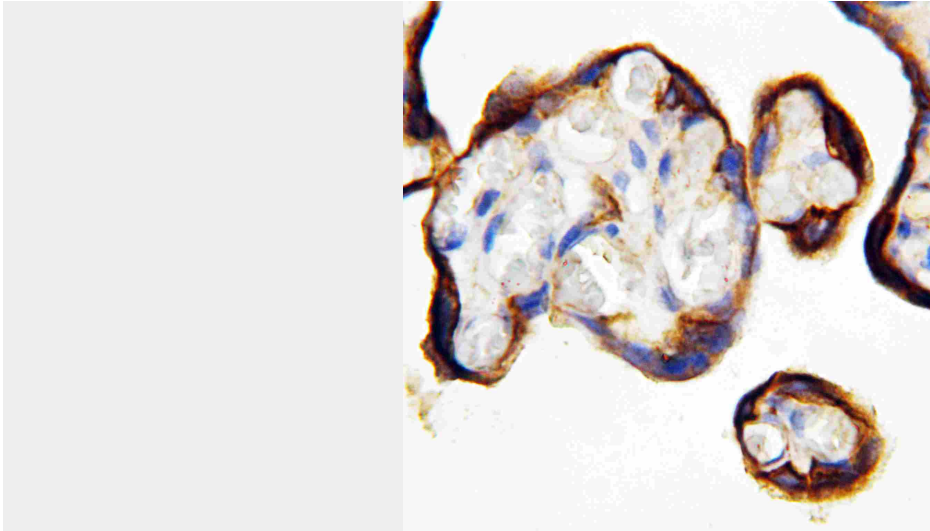
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Cyclophilin A Antibody - Images



Anti-Cyclophilin A antibody, ABO10768, Western blotting Lane 1: CEM Cell Lysate Lane 2: RAJI Cell Lysate



Anti-Cyclophilin A antibody, ABO10768, IHC(P)IHC(P): Human Placenta Tissue

Anti-Cyclophilin A Antibody - Background

Cyclophilin A (PPIA), Peptidylprolyl isomerase A, is an enzyme that in humans is encoded by the PPIA gene. Using chromosome 7 and chromosome 10 deletion hybrid panels, the PPIA coding gene is localized to 7p13-p11.2. This gene encodes a member of the peptidyl-prolyl cis-trans isomerase (PPIase) family. Cyclophilin A is a member of the immunophilin class of proteins that all possess peptidyl-prolyl cis/trans isomerase activity and are believed to be involved in protein folding and/or intracellular protein transport. Cyclophilin A binds to the Gag protein of human immunodeficiency virus type 1 (HIV-1). Cyclophilin A may have an essential function in HIV-1 replication. may have an essential function in HIV-1 replication.