

### Anti-Cyclophilin A/PPIA Antibody Picoband™

Catalog Number: A01308

#### **About PPIA**

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 also 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. And Cyclophilin A binds to the Gag protein of human immunodeficiency virus type 1 (HIV-1). Additionally, Cyclophilin A may have an essential function in HIV-1 replication.may have an essential function in HIV-1 replication.

#### Overview

Product Name	Anti-Cyclophilin A/PPIA Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Cyclophilin A/PPIA Antibody Picoband™ catalog # A01308. Tested in Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P62937

#### **Technical Details**

Immunogen	E.coli-derived human Cyclophilin A recombinant protein (Position: T116-E165). Human Cyclophilin A shares 98% and 95.9% amino acid (aa) sequence identity with mouse and rat Cyclophilin A, respectively.
Predicted Reactive Species	Human
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG





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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.  If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.  Some PubMed article(s) citing the expression level of this target are as follows:  Boster Bio's internal QC testing used:  Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat  Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human  Immunocytochemistry/Immunofluorescence, 2ug/ml, Human  Flow Cytometry, 1-3ug/1x10 <sup>6</sup> cells, Human



### Anti-Cyclophilin A/PPIA Antibody Picoband™ (A01308) Images

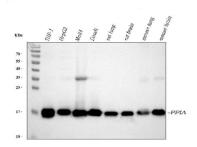


Figure 1. Western blot analysis of Cyclophilin A using anti-Cyclophilin A antibody (A01308).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human THP-1 whole cell lysates,

Lane 2: human HepG2 whole cell lysates,

Lane 3: human MOLT-4 whole cell lysates,

Lane 4: human Daudi whole cell lysates,

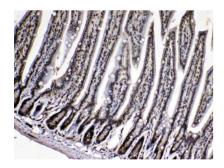
Lane 5: rat lung tissue lysates,

Lane 6: rat brain tissue lysates,

Lane 7: mouse lung tissue lysates,

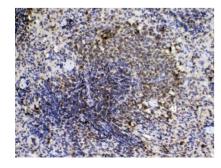
Lane 8: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Cyclophilin A antigen affinity purified polyclonal antibody (Catalog # A01308) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Cyclophilin A at approximately 185 kDa. The expected band size for Cyclophilin A is at 185 kDa.



#### Figure 2. IHC analysis of Cyclophilin A using anti-Cyclophilin A antibody (A01308).

Cyclophilin A was detected in paraffin-embedded section of mouse intestine tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Cyclophilin A Antibody (A01308) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



#### Figure 3. IHC analysis of Cyclophilin A using anti-Cyclophilin A antibody (A01308).

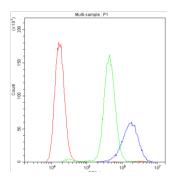
Cyclophilin A was detected in paraffin-embedded section of rat spleen tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Cyclophilin A Antibody (A01308) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue



section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

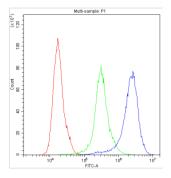
#### Figure 4. IHC analysis of Cyclophilin A using anti-Cyclophilin A antibody (A01308).

Cyclophilin A was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Cyclophilin A Antibody (A01308) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



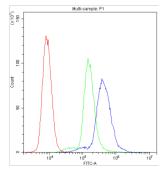
## Figure 5. Flow Cytometry analysis of THP-1 cells using anti-PPIA antibody (A01308).

Overlay histogram showing THP-1 cells stained with A01308 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PPIA Antibody (A01308,1ug/1x10 $^6$  cells) for 30 min at 20 $^\circ$ C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10 $^6$  cells) was used as secondary antibody for 30 minutes at 20 $^\circ$ C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10 $^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



# Figure 6. Flow Cytometry analysis of U937 cells using anti-PPIA antibody (A01308).

Overlay histogram showing U937 cells stained with A01308 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PPIA Antibody (A01308,  $1ug/1x10^6$  cells) for 30 min at 20°C. DyLight § 488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG ( $1ug/1x10^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

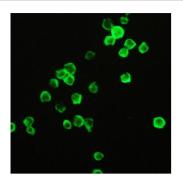


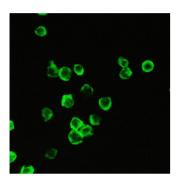
## Figure 7. Flow Cytometry analysis of K562 cells using anti-PPIA antibody (A01308).

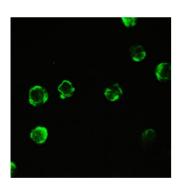
Overlay histogram showing K562 cells stained with A01308 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PPIA Antibody (A01308,1ug/1x10 $^6$  cells) for 30 min at 20°C. DyLight® 488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10 $^6$  cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10 $^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

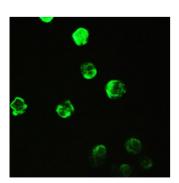
Figure 8. IHC analysis of Cyclophilin A using anti-Cyclophilin











A antibody (A01308).

Cyclophilin A was detected in immunocytochemical section of THP-1 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/ml rabbit anti-Cyclophilin A Antibody (A01308) overnight at 4°C. Biotin conjugated goat antirabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using DyLight®488 Conjugated Avidin (BA1128). Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Figure 9. IHC analysis of Cyclophilin A using anti-Cyclophilin A antibody (A01308).

Cyclophilin A was detected in immunocytochemical section of THP-1 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/ml rabbit anti-Cyclophilin A Antibody (A01308) overnight at 4°C. Biotin conjugated goat antirabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using DyLight®488 Conjugated Avidin (BA1128). Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Figure 10. IHC analysis of Cyclophilin A using anti-Cyclophilin A antibody (A01308).

Cyclophilin A was detected in immunocytochemical section of THP-1 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/ml rabbit anti-Cyclophilin A Antibody (A01308) overnight at 4°C. Biotin conjugated goat antirabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using DyLight®488 Conjugated Avidin (BA1128). Visualize using a fluorescence microscope and filter sets appropriate for the label used.

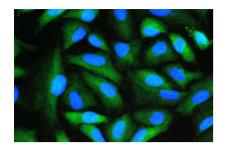
Figure 11. IHC analysis of Cyclophilin A using anti-Cyclophilin A antibody (A01308).

Cyclophilin A was detected in immunocytochemical section of THP-1 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/ml rabbit anti-Cyclophilin A Antibody (A01308) overnight at 4°C. Biotin conjugated goat antirabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using DyLight®488 Conjugated Avidin (BA1128). Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Figure 12. IF analysis of Cyclophilin A using anti-Cyclophilin







A antibody (A01308).

Cyclophilin A was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-Cyclophilin A Antibody (A01308) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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