

**Cyclophilin D Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP22108a****Specification**

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**Cyclophilin D Antibody - Product Information**

Application	IF, WB, IHC-P, FC,E
Primary Accession	<a href="#">Q08752</a>
Other Accession	<a href="#">Q9CR16</a> , <a href="#">Q6DGG0</a>
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	40764

**Cyclophilin D Antibody - Additional Information****Gene ID** 5481**Other Names**

Peptidyl-prolyl cis-trans isomerase D, PPIase D, 5.2.1.8, 40 kDa peptidyl-prolyl cis-trans isomerase, Cyclophilin-40, CYP-40, Cyclophilin-related protein, Rotamase D, PPID, CYP40, CYPD

**Target/Specificity**

This Cyclophilin D antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 336-370 amino acids from the human region of human Cyclophilin D.

**Dilution**

IF~~1:25

WB~~1:2000

IHC-P~~1:25

FC~~1:25

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Cyclophilin D Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Cyclophilin D Antibody - Protein Information**

**Name** PPID ([HGNC:9257](#))

**Synonyms** CYP40, CYPD

**Function** PPIase that catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides and may therefore assist protein folding (PubMed:[11350175](#), PubMed:[20676357](#)). Proposed to act as a co- chaperone in HSP90 complexes such as in unligated steroid receptors heterocomplexes. Different co-chaperones seem to compete for association with HSP90 thus establishing distinct HSP90-co-chaperone- receptor complexes with the potential to exert tissue-specific receptor activity control. May have a preference for estrogen receptor complexes and is not found in glucocorticoid receptor complexes. May be involved in cytoplasmic dynein-dependent movement of the receptor from the cytoplasm to the nucleus. May regulate MYB by inhibiting its DNA- binding activity. Involved in regulation of AHR signaling by promoting the formation of the AHR:ARNT dimer; the function is independent of HSP90 but requires the chaperone activity. Involved in regulation of UV radiation-induced apoptosis. Promotes cell viability in anaplastic lymphoma kinase-positive anaplastic large-cell lymphoma (ALK+ ALCL) cell lines.

**Cellular Location**

Cytoplasm. Nucleus, nucleolus. Nucleus, nucleoplasm

**Tissue Location**

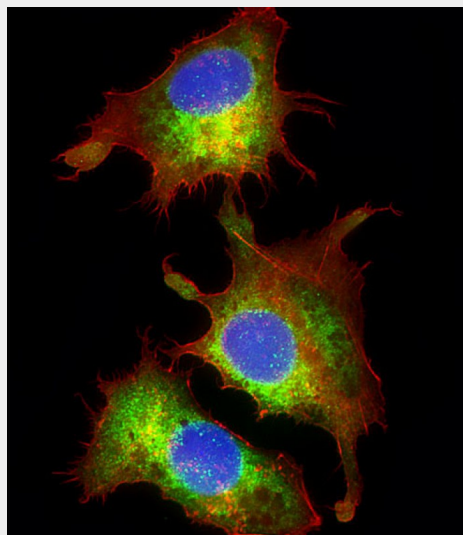
Widely expressed.

**Cyclophilin D Antibody - Protocols**

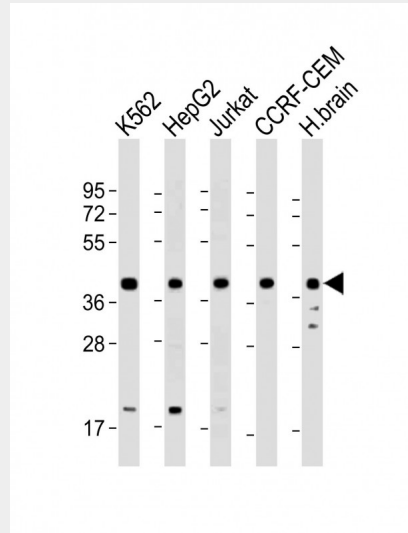
Provided below are standard protocols that you may find useful for product applications.

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

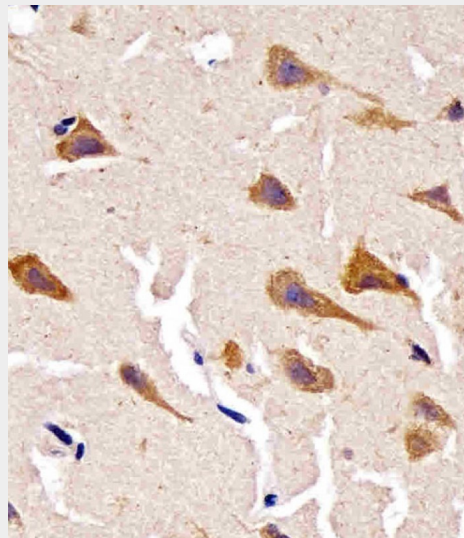
**Cyclophilin D Antibody - Images**



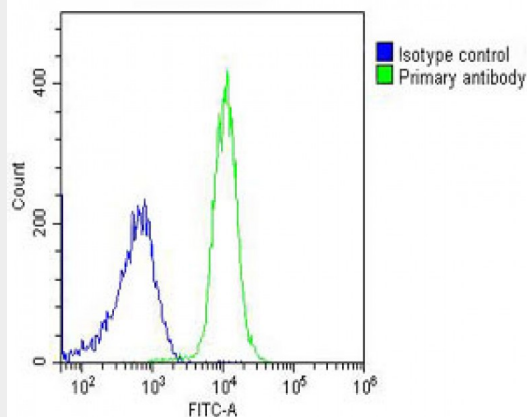
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (human liver hepatocellular carcinoma cell line) cells labeling Cyclophilin D with AP22108a at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HepG2 cell line. The nuclear counter stain is DAPI (blue).



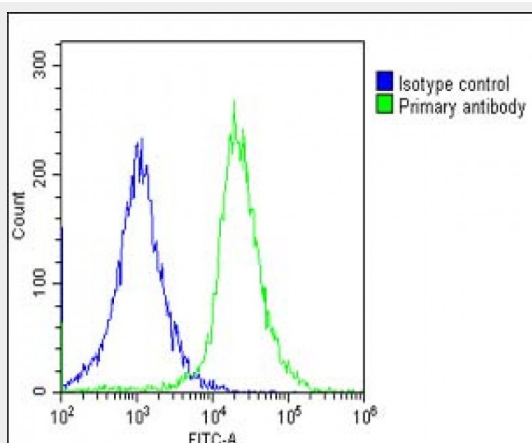
All lanes : Anti-Cyclophilin D Antibody at 1:2000 dilution Lane 1: K562 whole cell lysate Lane 2: HepG2 whole cell lysate Lane 3: Jurkat whole cell lysate Lane 4: CCRF-CEM whole cell lysate Lane 5: human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 41 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP22108a staining Cyclophilin D in human brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Overlay histogram showing K562 cells stained with AP22108a (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22108a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10, 000 events was performed.



Overlay histogram showing HepG2 cells stained with AP22108a(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22108a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OE188374) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10, 000 events was performed.

### Cyclophilin D Antibody - Background

PPIases accelerate the folding of proteins. It catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides. Proposed to act as a co-chaperone in HSP90 complexes such as in unligated steroid receptors heterocomplexes. Different co-chaperones seem to compete for association with HSP90 thus establishing distinct HSP90-co-chaperone-receptor complexes with the potential to exert tissue-specific receptor activity control. May have a preference for estrogen receptor complexes and is not found in glucocorticoid receptor complexes. May be involved in cytoplasmic dynein-dependent movement of the receptor from the cytoplasm to the nucleus. May regulate MYB by inhibiting its DNA- binding activity. Involved in regulation of AHR signaling by

promoting the formation of the AHR:ARNT dimer; the function is independent of HSP90 but requires the chaperone activity. Involved in regulation of UV radiation-induced apoptosis. Promotes cell viability in anaplastic lymphoma kinase-positive anaplastic large- cell lymphoma (ALK+ ALCL) cell lines. May be involved in hepatitis C virus (HCV) replication and release.

### **Cyclophilin D Antibody - References**

- Kieffer L.J.,et al.J. Biol. Chem. 268:12303-12310(1993).  
Yokoi H.,et al.Genomics 35:448-455(1996).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.  
Gevaert K.,et al.Nat. Biotechnol. 21:566-569(2003).