

## PPID / Cyclophilin D Antibody (clone 4C7)

Mouse Monoclonal Antibody Catalog # ALS16117

## **Specification**

## PPID / Cyclophilin D Antibody (clone 4C7) - Product Information

Application WB, IF, IHC
Primary Accession
Reactivity Human
Host Mouse
Clonality Monoclonal
Calculated MW 41kDa KDa

## PPID / Cyclophilin D Antibody (clone 4C7) - Additional Information

#### **Gene ID 5481**

#### **Other Names**

Peptidyl-prolyl cis-trans isomerase D, PPlase 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

Human PPID / Cyclophilin D

### **Reconstitution & Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

#### **Precautions**

PPID / Cyclophilin D Antibody (clone 4C7) is for research use only and not for use in diagnostic or therapeutic procedures.

## PPID / Cyclophilin D Antibody (clone 4C7) - Protein Information

Name PPID (HGNC:9257)

Synonyms CYP40, CYPD

#### **Function**

PPlase that catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides and may therefore assist protein folding (PubMed:<a

href="http://www.uniprot.org/citations/11350175" target="\_blank">11350175</a>, PubMed:<a href="http://www.uniprot.org/citations/20676357" target="\_blank">20676357</a>). 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.

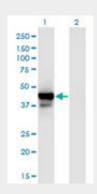
**Volume** 50 μl

## PPID / Cyclophilin D Antibody (clone 4C7) - Protocols

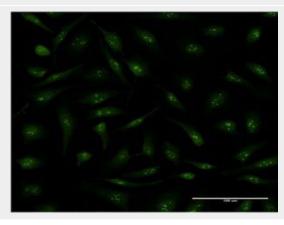
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## PPID / Cyclophilin D Antibody (clone 4C7) - Images

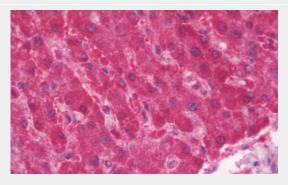


Western Blot analysis of PPID expression in transfected 293T cell line by PPID monoclonal...





Immunofluorescence of monoclonal antibody to PPID on HeLa cell . [antibody concentration 10 ug/ml]



Anti-PPID / Cyclophilin D antibody IHC staining of human liver.

## PPID / Cyclophilin D Antibody (clone 4C7) - Background

PPlases 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.

# PPID / Cyclophilin D Antibody (clone 4C7) - 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).