

PPIL2 (D-8): sc-398200

BACKGROUND

Cyclophilins are conserved, ubiquitous and abundant cytosolic peptidylprolyl *cis-trans* isomerases that accelerate the isomerization of XaaPro peptide bonds and the refolding of proteins. Cyp60 (cyclophilin-60), also known as PPIL2 (peptidylprolyl isomerase (cyclophilin)-like 2), CYC4 or PPlase, is a 520 amino acid nuclear protein that belongs to the PPIL2 subfamily of the cyclophilin-type PPlase family. As a peptidylprolyl isomerase, Cyp60 accelerates protein folding, specifically the *cis-trans* isomerization of oligopeptide proline imidic peptide bonds. Existing as two alternatively spliced isoforms, Cyp60 is highly expressed in testis, pancreas and placenta, along with many melanomas and lymphomas, and is expressed at lower levels in spleen, kidney, prostate, small intestine, colon, heart, placenta, liver and lung. The gene encoding Cyp60 maps to human chromosome 22q11.21.

REFERENCES

1. Wang, B.B., et al. 1996. Identification of a nuclear-specific cyclophilin which interacts with the proteinase inhibitor eglin c. *Biochem. J.* 314: 313-319.
2. Hatakeyama, S., et al. 2001. U box proteins as a new family of ubiquitin-protein ligases. *J. Biol. Chem.* 276: 33111-33120.
3. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 607588. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Pushkarsky, T., et al. 2005. Cell surface expression of CD147/EMMPRIN is regulated by cyclophilin 60. *J. Biol. Chem.* 280: 27866-27871.
5. Yao, Q., et al. 2005. Roles of cyclophilins in cancers and other organ systems. *World J. Surg.* 29: 276-280.
6. Carson, R., et al. 2009. Variation in RTN3 and PPIL2 genes does not influence platelet membrane β -secretase activity or susceptibility to Alzheimer's disease in the northern Irish population. *Neuromolecular Med.* 11: 337-344.

CHROMOSOMAL LOCATION

Genetic locus: PPIL2 (human) mapping to 22q11.21; Ppil2 (mouse) mapping to 16 A3.

SOURCE

PPIL2 (D-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 346-369 within an internal region of PPIL2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398200 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

PPIL2 (D-8) is recommended for detection of PPIL2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PPIL2 (D-8) is also recommended for detection of PPIL2 in additional species, including equine and porcine.

Suitable for use as control antibody for PPIL2 siRNA (h): sc-77077, PPIL2 siRNA (m): sc-142740, PPIL2 shRNA Plasmid (h): sc-77077-SH, PPIL2 shRNA Plasmid (m): sc-142740-SH, PPIL2 shRNA (h) Lentiviral Particles: sc-77077-V and PPIL2 shRNA (m) Lentiviral Particles: sc-142740-V.

Molecular Weight of PPIL2: 59 kDa.

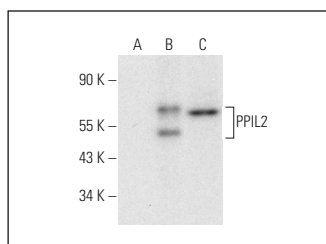
Positive Controls: PPIL2 (h4): 293T Lysate: sc-175188, NIH/3T3 whole cell lysate: sc-2210 or K-562 nuclear extract: sc-2130.

RECOMMENDED SUPPORT REAGENTS

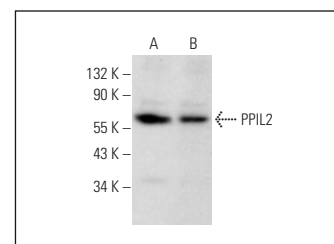
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PPIL2 (D-8): sc-398200. Western blot analysis of PPIL2 expression in non-transfected: sc-117752 (A) and human PPIL2 transfected: sc-175188 (B) 293T whole cell lysates and K-562 nuclear extract (C).



PPIL2 (D-8): sc-398200. Western blot analysis of PPIL2 expression in K-562 (A) and NIH/3T3 (B) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.