

Cyclophilin 40 (N-12): sc-33066

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. Human cyclophilin A (CyPA), an intracellular protein of 165 amino acids, is the target of cyclosporin A (CsA) and is encoded by a single unique gene conserved from yeast to humans.

Cyclophilin B (CyPB) is secreted in biological fluids such as blood or milk and binds to a specific receptor present on the human lymphoblastic cell line Jurkat and on human peripheral blood lymphocytes. Cyclophilin 40 (CyP40) is a widely expressed cytoplasmic protein that catalyzes the *cis-trans* isomerization of proline imidic peptide bonds in oligopeptides. It is a widely expressed cytoplasmic protein.

REFERENCES

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2. Yokoi, H., et al. 1996. The structure and complete nucleotide sequence of the human Cyclophilin 40 (PPID) gene. *Genomics* 35: 448-455.
3. Gevaert, K., et al. 2003. Exploring proteomes and analyzing protein processing by mass spectrometric identification of sorted N-terminal peptides. *Nat. Biotechnol.* 21: 566-569.
4. Guo, H.X., et al. 2005. Novel Cyclophilin D inhibitors derived from quinoxaline exhibit highly inhibitory activity against rat mitochondrial swelling and Ca²⁺ uptake/ release. *Acta Pharmacol. Sin.* 26: 1201-1211.
5. Schinzel, A.C., et al. 2005. Cyclophilin D is a component of mitochondrial permeability transition and mediates neuronal cell death after focal cerebral ischemia. *Proc. Natl. Acad. Sci. USA* 102: 12005-12010.
6. Schneider, M.D. 2005. Cyclophilin D: knocking on death's door. *Sci. STKE* 2005: pe26.
7. SWISS-PROT/TrEMBL (Q08752). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: PPID (human) mapping to 4q32.1; Ppid (mouse) mapping to 3 E3.

SOURCE

Cyclophilin 40 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Cyclophilin 40 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-33066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cyclophilin 40 (N-12) is recommended for detection of Cyclophilin 40 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for Cyclophilin 40 siRNA (h): sc-44892, Cyclophilin 40 siRNA (m): sc-44893, Cyclophilin 40 shRNA Plasmid (h): sc-44892-SH, Cyclophilin 40 shRNA Plasmid (m): sc-44893-SH, Cyclophilin 40 shRNA (h) Lentiviral Particles: sc-44892-V and Cyclophilin 40 shRNA (m) Lentiviral Particles: sc-44893-V.

Molecular Weight of Cyclophilin 40: 41 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or JAR cell lysate: sc-2276.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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



Try **Cyclophilin 40 (C-11): sc-137216** or **Cyclophilin 40 (F-5): sc-137157**, our highly recommended monoclonal alternatives to Cyclophilin 40 (N-12).