

# Cyclophilin 40 (C-14): sc-33068

## BACKGROUND

Cyclophilins are conserved, ubiquitous and abundant cytosolic peptidyl-prolyl *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

1. Kieffer, L.J., et al. 1993. Cyclophilin-40, a protein with homology to the P59 component of the steroid receptor complex. Cloning of the cDNA and further characterization. *J. Biol. Chem.* 268: 12303-12310.
2. Yokoi, H., et al. 1996. The structure and complete nucleotide sequence of the human Cyclophilin 40 (PPID) gene. *Genomics* 35: 448-455.

## CHROMOSOMAL LOCATION

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

## SOURCE

Cyclophilin 40 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-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-33068 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Cyclophilin 40 (C-14) 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), immunoprecipitation [1-2 µg per 100-500 µg 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).

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.

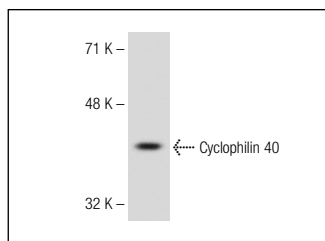
Molecular Weight of Cyclophilin 40: 41kDa.

Positive Controls: JAR cell lysate: sc-2276, NIH/3T3 whole cell lysate: sc-2210 or Sol8 nuclear extract: sc-2157.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Cyclophilin 40 (C-14): sc-33068. Western blot analysis of Cyclophilin 40 expression in Sol8 nuclear extract.

## SELECT PRODUCT CITATIONS

1. Lumini-Oliveira, J., et al. 2011. Endurance training reverts heart mitochondrial dysfunction, permeability transition and apoptotic signaling in long-term severe hyperglycemia. *Mitochondrion* 11: 54-63.

## 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](http://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 (C-14).