

Cyclophilin G (H-70): sc-134607

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. Cyclophilin G, also known as CARS-Cyp (Clk-associating RS-cyclophilin), SRcyp (SR-cyclophilin), CASP10, PPlase G or Rotamase G, is a ubiquitously expressed member of the MOCA family of cyclophilins. Localizing to the nucleus and, during interphase, nuclear speckles, Cyclophilin G contains an N-terminal cyclophilin-type domain, an acidic serine-rich region, five Cdc2-type phosphorylation sites and a series of serine-arginine repeats throughout the C-terminus. Cyclophilin G is phosphorylated during mitosis by the Cdc2-cyclin B complex, suggesting that its function is cell cycle-regulated. In addition, Cyclophilin G is capable of interacting with Pinin and the C-terminus of the largest subunit of RNA polymerase II (Pol II). Cyclophilin G may participate in pre-mRNA splicing by regulating the sub-nuclear localization of SR/SR-like protein family members.

REFERENCES

1. Nestel, F.P., et al. 1996. RS cyclophilins: identification of an NK-TR1-related cyclophilin. *Gene* 180: 151-155.
2. Giardina, S.L., et al. 1996. Association of the expression of an SR-cyclophilin with myeloid cell differentiation. *Blood* 87: 2269-2274.
3. Bourquin, J.P., et al. 1997. A serine/arginine-rich nuclear matrix cyclophilin interacts with the C-terminal domain of RNA polymerase II. *Nucleic Acids Res.* 25: 2055-2061.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606093. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Dubourg, B., et al. 2004. The human nuclear SRcyp is a cell cycle-regulated cyclophilin. *J. Biol. Chem.* 279: 22322-22330.
6. Lin, C.L., et al. 2004. Overexpression of SR-cyclophilin, an interaction partner of nuclear Pinin, releases SR family splicing factors from nuclear speckles. *Biochem. Biophys. Res. Commun.* 321: 638-647.
7. Chiu, Y. and Ouyang, P. 2006. Loss of Pnn expression attenuates expression levels of SR family splicing factors and modulates alternative pre-mRNA splicing *in vivo*. *Biochem. Biophys. Res. Commun.* 341: 663-671.

CHROMOSOMAL LOCATION

Genetic locus: PPIG (human) mapping to 2q31.1; Ppigg (mouse) mapping to 2 C2.

SOURCE

Cyclophilin G (H-70) is a rabbit polyclonal antibody raised against amino acids 207-276 mapping within an internal region of Cyclophilin G 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.

APPLICATIONS

Cyclophilin G (H-70) is recommended for detection of Cyclophilin G 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 G siRNA (h): sc-94752, Cyclophilin G siRNA (m): sc-142661, Cyclophilin G shRNA Plasmid (h): sc-94752-SH, Cyclophilin G shRNA Plasmid (m): sc-142661-SH, Cyclophilin G shRNA (h) Lentiviral Particles: sc-94752-V and Cyclophilin G shRNA (m) Lentiviral Particles: sc-142661-V.

Molecular Weight of Cyclophilin G: 89 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.


 MONOS
 Satisfation
 Guaranteed

Try **Cyclophilin G (8S5): sc-100699**, our highly recommended monoclonal alternative to Cyclophilin G (H-70).