SANTA CRUZ BIOTECHNOLOGY, INC.

PPIH (G-6): sc-377420

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The Power to Question

BACKGROUND

PPIH (peptidylprolyl isomerase H (cyclophilin H)), also known as PPIase H, Rotamase H, CypH, CYP20 or USA-CYP (U-snRNP-associated cyclophilin SnuCyp-20), is a 177 amino acid protein that belongs to the cyclophilin-type PPIase family. PPIH may accelerate the folding of proteins and catalyzes the *cis-trans* isomerization of proline imidic peptide bonds in oligopeptides. PPIH is thought to participate in pre-mRNA splicing with processing factors PRPF3, PRPF4, and PRPF18 and may be involved in the assembly of the U4/U5/U6 tri-snRNP complex. Considered a protein chaperone, PPIH possesses PPIase activity and mediates the interactions between different proteins inside the spliceosome. PPIH contains one PPIase cyclophilin-type domain and is inhibited by cyclosporin A.

REFERENCES

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2. Schmidt, B., et al. 1996. A cyclophilin-like peptidyl-prolyl *cis/trans* isomerase from *Legionella pneumophila*—characterization, molecular cloning and overexpression. Mol. Microbiol. 21: 1147-1160.
3. Horowitz, D.S., et al. 1997. A new cyclophilin and the human homologues of yeast Prp3 and Prp4 form a complex associated with U4/U6 snRNPs. RNA 3: 1374-1387.
4. Teigelkamp, S., et al. 1998. The 20kD protein of human [U4/U6.U5] tri-snRNPs is a novel cyclophilin that forms a complex with the U4/U6-specific 60kD and 90kD proteins. RNA 4: 127-141.
5. Reidt, U., et al. 2003. Crystal structure of a complex between human spliceosomal cyclophilin H and a U4/U6 snRNP-60K peptide. J. Mol. Biol. 331: 45-56.
6. Ingelfinger, D., et al. 2003. Two protein-protein interaction sites on the spliceosome-associated human cyclophilin CypH. Nucleic Acids Res. 31: 4791-4796.
7. Galat, A. 2004. Function-dependent clustering of orthologues and paralogues of cyclophilins. Proteins 56: 808-820.
8. Gonzalez-Santos, J.M., et al. 2008. Mutation in the splicing factor Hprp3p linked to retinitis pigmentosa impairs interactions within the U4/U6 snRNP complex. Hum. Mol. Genet. 17: 225-239.
9. Patel, S.B., et al. 2008. The assembly of a spliceosomal small nuclear ribonucleoprotein particle. Nucleic Acids Res. 36: 6482-6493.

CHROMOSOMAL LOCATION

Genetic locus: PPIH (human) mapping to 1p34.2; Ppih (mouse) mapping to 4 D2.1.

SOURCE

PPIH (G-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 151-174 at the C-terminus of PPIH of human origin.

PRODUCT

Each vial contains 200 µg IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-377420 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-377420 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PPIH (G-6) is recommended for detection of PPIH of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

PPIH (G-6) is also recommended for detection of PPIH in additional species, including equine, canine, bovine, porcine and avian.

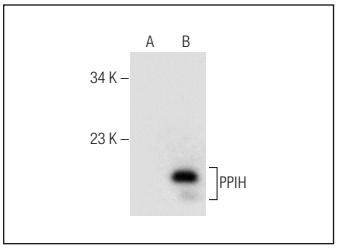
Suitable for use as control antibody for PPIH siRNA (h): sc-76207, PPIH siRNA (m): sc-76208, PPIH shRNA Plasmid (h): sc-76207-SH, PPIH shRNA Plasmid (m): sc-76208-SH, PPIH shRNA (h) Lentiviral Particles: sc-76207-V and PPIH shRNA (m) Lentiviral Particles: sc-76208-V.

PPIH (G-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

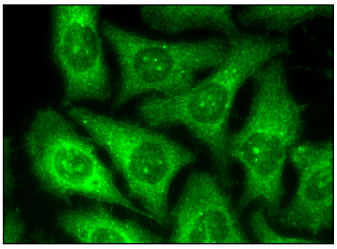
Molecular Weight of PPIH: 20 kDa.

Positive Controls: PPIH (m): 293T Lysate: sc-125851.

DATA



PPIH (G-6): sc-377420. Western blot analysis of PPIH expression in non-transfected: sc-117752 (**A**) and mouse PPIH transfected: sc-125851 (**B**) 293T whole cell lysates.



PPIH (G-6): sc-377420. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

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.