SANTA CRUZ BIOTECHNOLOGY, INC.

PPIH (C-1): sc-377217

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

1. Chambraud, B., et al. 1993. Overexpression of p59-HBI (FKBP59), full length and domains, and characterization of PPIase activity. Biochem. Biophys. Res. Commun. 196: 160-166.
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.

CHROMOSOMAL LOCATION

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

SOURCE

PPIH (C-1) is a mouse monoclonal antibody raised against a peptide mapping within an internal region of PPIH of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain 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-377217 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-377217 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PPIH (C-1) 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).

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 (C-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

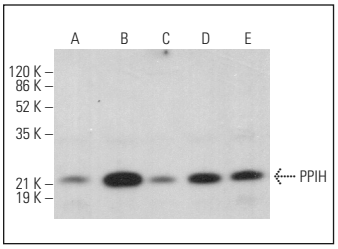
Molecular Weight of PPIH: 20 kDa.

Positive Controls: HL-60 nuclear extract: sc-2147, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

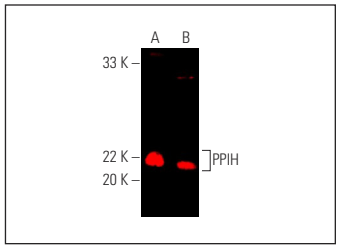
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



PPIH (C-1): sc-377217. Western blot analysis of PPIH expression in HeLa (**A**), THP-1 (**B**), Jurkat (**C**), K-562 (**D**) and HEL 92.1.7 (**E**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



PPIH (C-1): sc-377217. Near-Infrared western blot analysis of PPIH expression in HL-60 nuclear extract (**A**) and THP-1 whole cell lysate (**B**). Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.

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.