SANTA CRUZ BIOTECHNOLOGY, INC.

pirin (FL-290): sc-134772



BACKGROUND

Pirin (also designated iron-binding nuclear protein) is a highly conserved eukaryotic protein involved in transcriptional activation and apoptosis. Pirin mRNA is poorly expressed in all human tissues, and multiple pirin transcripts are expressed in heart and skeletal muscle. Research indicates that the expression of pirin may be localized to subnuclear structures. The interaction of pirin with NFI/ CTF1 (nuclear factor I/CCAAT box transcription factor) classifies pirin as a putative NFI/CTF1 cofactor, which might lead to new insights in NFI/CTF1 activity. Pirin may be a significant factor in transcriptional regulation and is presumably involved in the regulation of DNA transcription and replication.

REFERENCES

- Wendler, W.M., Kremmer, E., Förster, R. and Winnacker, E.L. 1997. Identification of pirin, a novel highly conserved nuclear protein. The J. Biol. Chem. 272: 8482-8489.
- Orzaez, D., de Jong, A.J. and Woltering, E.J. 2001. A tomato homologue of the human protein pirin is induced during programmed cell death. Plant Mol. Biol. 46: 459-468.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603329. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Zeng, Q., Li, X., Bartlam, M., Wang, G., Pang, H. and Rao, Z. 2003. Purification, crystallization and preliminary X-ray analysis of human pirin. Acta Crystallogr. D Biol. Crystallogr. 59: 1496-1498.
- Hihara, Y., Muramatsu, M., Nakamura, K. and Sonoike, K. 2004. A cyanobacterial gene encoding an ortholog of Pirin is induced under stress conditions. FEBS Lett. 574: 101-105.
- Pang, H., Bartlam, M., Zeng, Q., Miyatake, H., Hisano, T., Miki, K., Wong, L.L., Gao, G.F. and Rao, Z. 2004. Crystal structure of human pirin: an ironbinding v cofactor. J. Biol. Chem. 279: 1491-1498.

CHROMOSOMAL LOCATION

Genetic locus: PIR (human) mapping to Xp22.2; Pir (mouse) mapping to X F5.

SOURCE

pirin (FL-290) is a rabbit polyclonal antibody raised against amino acids 1-290 representing full length pirin 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-134772 X, 200 $\mu g/0.1$ ml.

STORAGE

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

APPLICATIONS

pirin (FL-290) is recommended for detection of pirin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

pirin (FL-290) is also recommended for detection of pirin in additional species, including equine, canine and porcine.

Suitable for use as control antibody for pirin siRNA (h): sc-61359, pirin siRNA (m): sc-61360, pirin shRNA Plasmid (h): sc-61359-SH, pirin shRNA Plasmid (m): sc-61360-SH, pirin shRNA (h) Lentiviral Particles: sc-61359-V and pirin shRNA (m) Lentiviral Particles: sc-61360-V.

pirin (FL-290) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of pirin: 32 kDa.

Molecular Weight (observed) of pirin: 37 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

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.

DATA



pirin (FL-290): sc-134772. Western blot analysis of pirin expression in HeLa (A), Hep G2 (B), THP-1 (C) and A549 (D) whole cell lysates.

RESEARCH USE

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