# SANTA CRUZ BIOTECHNOLOGY, INC.

# pirin (C-20): sc-48646



#### 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 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. 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.
- 3. 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 nuclear protein and transcription cofactor. J. Biol. Chem. 279: 1491-1498.
- Yoshikawa, R., Yanagi, H., Hashimoto-Tamaoki, T., Morinaga, T., Nakano, Y., Noda, M., Fujiwara, Y., Okamura, H. and Yamamura, T. 2004. Gene expression in response to anti-tumour intervention by polysaccharide-K (PSK) in colorectal carcinoma cells. Oncol. Rep. 12: 1287-1293.
- Adams, M. and Jia, Z. 2005. Structural and biochemical analysis reveal pirins to possess quercetinase activity. J. Biol. Chem. 280: 28675-28682.

# CHROMOSOMAL LOCATION

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

#### SOURCE

pirin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of pirin of human origin.

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48646 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

pirin (C-20) 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 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).

pirin (C-20) is also recommended for detection of pirin in additional species, including equine, canine, bovine 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 (C-20) 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: pirin (m): 293T Lysate: sc-122594, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

## DATA



pirin (C-20): sc-48646. Western blot analysis of pirin expression in non-transfected 293T: sc-117752 (**A**), mouse pirin transfected 293T: sc-122594 (**B**) and HeLa (**C**) whole cell lysates.

#### **RESEARCH USE**

MONOS

Satisfation

Guaranteed

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

# Try pirin (D-12): sc-271622 or pirin (D-10):

**sc-271623**, our highly recommended monoclonal alternatives to pirin (C-20).