

# PNRC2 (C-14): sc-160673

## BACKGROUND

PNRC2 (proline-rich nuclear receptor co-activator 2), also known as HSPC208, is a 139 amino acid nuclear protein. Expressed in lung, heart, brain, placenta and skeletal muscle, PNRC2 functions as a nuclear receptor co-activator that interacts with and activates a variety of proteins, including ER $\alpha$ , ERR $\alpha$ , ERR $\gamma$ , GR and PR. The interaction between PNRC2 and its target receptors is dependent upon the presence of an SH3 binding motif, a small protein domain that has a  $\beta$ -barrel fold and is found in substrate-specific proteins that are involved in signaling pathways. In addition to its role as a nuclear co-activator, PNRC2 may be necessary for maintaining fat stores within the body and is thought to play an important part in controlling the balance between energy expenditure and energy storage.

## REFERENCES

- Zhou, D., Quach, K.M., Yang, C., Lee, S.Y., Pohajdak, B. and Chen, S. 2000. PNRC: a proline-rich nuclear receptor co-regulatory protein that modulates transcriptional activation of multiple nuclear receptors including orphan receptors SF1 (steroidogenic factor 1) and ERR $\alpha$ 1 (estrogen related receptor  $\alpha$ -1). *Mol. Endocrinol.* 14: 986-998.
- Zhou, D. and Chen, S. 2001. PNRC2 is a 16 kDa co-activator that interacts with nuclear receptors through an SH3-binding motif. *Nucleic Acids Res.* 29: 3939-3948.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611882. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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- Zhou, D., Masri, S., Ye, J.J. and Chen, S. 2005. Transcriptional regulation of the mouse PNRC2 promoter by the nuclear factor Y (NFY) and E2F1. *Gene* 361: 89-100.
- Zhou, D., Ye, J.J., Li, Y., Lui, K. and Chen, S. 2006. The molecular basis of the interaction between the proline-rich SH3-binding motif of PNRC and estrogen receptor  $\alpha$ . *Nucleic Acids Res.* 34: 5974-5986.

## CHROMOSOMAL LOCATION

Genetic locus: PNRC2 (human) mapping to 1p36.11; Pnrc2 (mouse) mapping to 4 D3.

## SOURCE

PNRC2 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PNRC2 of human origin.

## 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.

## PRODUCT

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

Blocking peptide available for competition studies, sc-160673 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PNRC2 (C-14) is recommended for detection of PNRC2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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); non cross-reactive with family member PNRC1.

PNRC2 (C-14) is also recommended for detection of PNRC2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PNRC2 siRNA (h): sc-78752, PNRC2 siRNA (m): sc-152362, PNRC2 shRNA Plasmid (h): sc-78752-SH, PNRC2 shRNA Plasmid (m): sc-152362-SH, PNRC2 shRNA (h) Lentiviral Particles: sc-78752-V and PNRC2 shRNA (m) Lentiviral Particles: sc-152362-V.

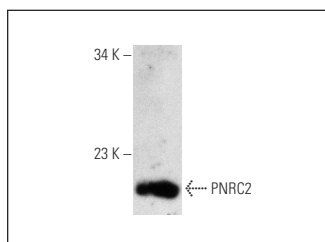
Molecular Weight of PNRC2: 16 kDa.

Positive Controls: A-431 nuclear extract: sc-2122.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



PNRC2 (C-14): sc-160673. Western blot analysis of PNRC2 expression in A-431 nuclear extract.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.