

# Pirh2 (E-11): sc-166901

## BACKGROUND

Pirh2, also known as Androgen receptor N-terminal-interacting protein (ARNIP), ZN363 or CHIMP, has p53-induced ubiquitin-protein ligase activity, promoting p53 degradation. The protein physically interacts with p53 and the resulting degradation of p53 renders Pirh2 an oncogenic protein as the loss of p53 function contributes to malignant tumor development. The gene encoding for the protein maps to chromosome 4q21.1 and transcription of this gene is regulated by p53. Pirh2 expression decreases the level of p53 and a decrease of endogenous Pirh2 expression ups p53 levels. Pirh2 is therefore considered, together with MDM2, to be acting as a negative regulator of p53 function.

## REFERENCES

1. Beitel, L.K., et al. 2002. Cloning and characterization of an androgen receptor N-terminal-interacting protein with ubiquitin-protein ligase activity. *J. Mol. Endocrinol.* 29: 41-60.
2. Leng, R.P., et al. 2003. Pirh2, a p53-induced ubiquitin-protein ligase, promotes p53 degradation. *Cell* 112: 779-791.
3. Duan, W., et al. 2004. Expression of Pirh2, a newly identified ubiquitin protein ligase, in lung cancer. *J. Natl. Cancer Inst.* 96: 1718-1721.
4. Corcoran, C.A., et al. 2004. The p53 paddy wagon: COP1, Pirh2 and MDM2 are found resisting apoptosis and growth arrest. *Cancer Biol. Ther.* 3: 721-725.
5. Dornan, D., et al. 2004. The ubiquitin ligase COP1 is a critical negative regulator of p53. *Nature* 429: 86-92.
6. Martoriati, A., et al. 2005. *dapk1*, encoding an activator of a p19ARF-p53-mediated apoptotic checkpoint, is a transcription target of p53. *Oncogene* 24: 1461-1466.

## CHROMOSOMAL LOCATION

Genetic locus: RCHY1 (human) mapping to 4q21.1; Rchy1 (mouse) mapping to 5 E2.

## SOURCE

Pirh2 (E-11) is a mouse monoclonal antibody raised against amino acids 1-261 representing full length Pirh2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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-166901 X, 200 µg/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.

## PROTOCOLS

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

## APPLICATIONS

Pirh2 (E-11) is recommended for detection of Pirh2 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 Pirh2 siRNA (h): sc-45424, Pirh2 siRNA (m): sc-45425, Pirh2 shRNA Plasmid (h): sc-45424-SH, Pirh2 shRNA Plasmid (m): sc-45425-SH, Pirh2 shRNA (h) Lentiviral Particles: sc-45424-V and Pirh2 shRNA (m) Lentiviral Particles: sc-45425-V.

Pirh2 (E-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

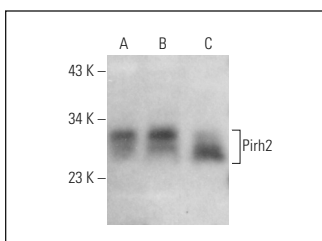
Molecular Weight of Pirh2: 30 kDa.

Positive Controls: C2C12 whole cell lysate: sc-364188, F9 cell lysate: sc-2245 or EOC 20 whole cell lysate: sc-364187.

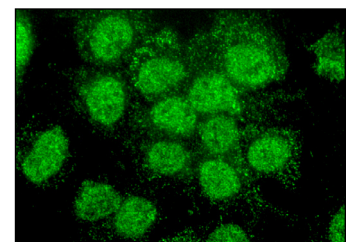
## RECOMMENDED SUPPORT REAGENTS

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



Pirh2 (E-11): sc-166901. Western blot analysis of Pirh2 expression in C2C12 (A), F9 (B) and EOC 20 (C) whole cell lysates.



Pirh2 (E-11): sc-166901. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

## RESEARCH USE

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