

# HCNP (V-17): sc-69281

## BACKGROUND

HCNP, also known as XAB2 (xeroderma pigmentosum group A (XPA) binding protein 2), HCRN, SYF1 or NTC90, is a nuclear protein that participates in transcription, transcription-coupled repair (TCR) and pre-mRNA splicing. It contains 15 tetratricopeptide repeat motifs and associates with nucleotide excision repair machinery. More specifically, HCNP associates with Cockayne syndrome group A and B proteins (CSA and CSB), RNA Polymerase II (Pol II) and XPA in response to DNA damage and is believed to function in the TCR pathway. HCNP also functions as an essential component of a pre-mRNA splicing complex of the spliceosome (composed of AQR (aquarius), PRP19, CCDC16, HCNP, ISY1 and cyclophilin E) and is required for proper RNA synthesis in the cell. In addition, HCNP functions as a component of the RAR corepressor complex with RAR $\alpha$  and HDAC3 and exhibits an inhibitory effect on ATRA-induced cell differentiation. This suggests that HCNP may function as a useful target in cancer therapy.

## REFERENCES

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- Yonemasu, R., et al. 2005. Disruption of mouse XAB2 gene involved in pre-mRNA splicing, transcription and transcription-coupled DNA repair results in preimplantation lethality. *DNA Repair* 4: 479-491.
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- Ohnuma-Ishikawa, K., et al. 2007. Knockdown of XAB2 enhances all-*trans* retinoic acid-induced cellular differentiation in all-*trans* retinoic acid-sensitive and -resistant cancer cells. *Cancer Res.* 67: 1019-1029.
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## CHROMOSOMAL LOCATION

Genetic locus: XAB2 (human) mapping to 19p13.2; Xab2 (mouse) mapping to 8 A1.1.

## SOURCE

HCNP (V-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HCNP of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69281 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

HCNP (V-17) is recommended for detection of HCNP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

HCNP (V-17) is also recommended for detection of HCNP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HCNP siRNA (h): sc-75232, HCNP siRNA (m): sc-75233, HCNP shRNA Plasmid (h): sc-75232-SH, HCNP shRNA Plasmid (m): sc-75233-SH, HCNP shRNA (h) Lentiviral Particles: sc-75232-V and HCNP shRNA (m) Lentiviral Particles: sc-75233-V.

Molecular Weight of HCNP: 100 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

## 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) 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.

## 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.

## PROTOCOLS

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



Try **HCNP (F-1): sc-271038** or **HCNP (C-9): sc-271037**, our highly recommended monoclonal alternatives to HCNP (V-17).