

# Pontin 52 (Q-15): sc-15260

## BACKGROUND

Pontin 52 is a nuclear matrix protein that is primarily expressed in the nucleus and is also present in the cytoplasm. Pontin 52 is expressed in the nucleoplasm of whole cells, but is not present in the nucleoli. Pontin 52 is also designated RuvBL1, for *E. coli* RuvB-like 1 protein, or NMP 238, and is the human homolog of rat TIP49. Pontin 52 contains an ATPase/helicase motif and may represent a class of cofactors recruited by transcriptional activation domains that function in diverse pathways. For instance, *in vivo*, Pontin 52 is complexed with Myc and Reptin 52, which is a Pontin 52 related protein also designated RuvBL2. The interaction of Pontin 52 with Myc is dependent upon a Myc domain essential for oncogenic activity, suggesting that functional Pontin 52 is an essential mediator of Myc oncogenic transformation. The gene encoding human Pontin 52 maps to chromosome 3q21.3.

## REFERENCES

- Bauer, A., et al. 1998. Pontin 52, an interaction partner of  $\beta$ -catenin, binds to the TATA box-binding protein. *Proc. Natl. Acad. Sci. USA* 95: 14787-14792.
- Makino, Y., et al. 1998. TIP49, homologous to the bacterial DNA helicase RuvB, acts as an autoantigen in human. *Biochem. Biophys. Res. Commun.* 245: 819-823.
- Holzmann, K., et al. 1998. Identification and characterization of the ubiquitously occurring nuclear matrix protein NMP 238. *Biochem. Biophys. Res. Commun.* 252: 39-45.
- Qiu, X.B., et al. 1998. An eukaryotic RuvB-like protein (RuvBL1) essential for growth. *J. Biol. Chem.* 273: 27786-27793.
- Wood, M.A., et al. 2000. An ATPase/helicase complex is an essential cofactor for oncogenic transformation by c-Myc. *Mol. Cell* 5: 321-330.
- Lim, C.R., et al. 2000. The *Saccharomyces cerevisiae* RuvB-like protein, Tih2p, is required for cell cycle progression and RNA polymerase II-directed transcription. *J. Biol. Chem.* 275: 22409-22417.

## CHROMOSOMAL LOCATION

Genetic locus: Genetic locus: RUVBL1 (human) mapping to 3q21.3; Ruvbl1 (mouse) mapping to 6 D1.

## SOURCE

Pontin 52 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Pontin 52 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG 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-15260 X, 200  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-15260 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Pontin 52 (Q-15) is recommended for detection of Pontin 52 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).

Pontin 52 (Q-15) is also recommended for detection of Pontin 52 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Pontin 52 siRNA (h): sc-43543, Pontin 52 siRNA (m): sc-60010, Pontin 52 shRNA Plasmid (h): sc-43543-SH, Pontin 52 shRNA Plasmid (m): sc-60010-SH, Pontin 52 shRNA (h) Lentiviral Particles: sc-43543-V and Pontin 52 shRNA (m) Lentiviral Particles: sc-60010-V.

Pontin 52 (Q-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Pontin 52: 50 kDa.

Positive Controls: SK-BR-3 nuclear extract: sc-2134, K-562 nuclear extract: sc-2130 or KNRK nuclear extract: sc-2141.

## 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.

## PROTOCOLS

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



Try **Pontin 52 (A-11): sc-393905** or **Pontin 52 (H-4): sc-365339**, our highly recommended monoclonal alternatives to Pontin 52 (Q-15).