

# RP58 (N-18): sc-248479

## BACKGROUND

The BTB (broad-complex, tramtrack and bric a brac) domain, also known as the POZ (POxvirus and zinc finger) domain, is an N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. RP58, also known as ZNF238 (zinc finger protein 238), TAZ1 or ZBTB18, is a 522 amino acid protein that localizes to the nucleus and contains one BTB (POZ) domain and 4 C<sub>2</sub>H<sub>2</sub>-type zinc fingers. Expressed in brain, testis, heart, pancreas, skeletal muscle and lymphoid tissue, RP58 interacts with Dnmt3a and functions as a sequence-specific DNA-binding protein that exhibits transcriptional repression activity and is thought to play a role in chromosomal organization within the nucleus. RP58 exists as two alternatively spliced isoforms and is subject to DNA damage-dependent phosphorylation, probably by ATM or ATR.

## REFERENCES

1. Bardwell, V.J., et al. 1994. The POZ domain: a conserved protein-protein interaction motif. *Genes Dev.* 8: 1664-1677.
2. Zollman, S., et al. 1994. The BTB domain, found primarily in zinc finger proteins, defines an evolutionarily conserved family that includes several developmentally regulated genes in *Drosophila*. *Proc. Natl. Acad. Sci. USA* 91: 10717-10721.
3. Becker, K.G., et al. 1997. C<sub>2</sub>H<sub>2</sub>-171: a novel human cDNA representing a developmentally regulated POZ domain/zinc finger protein preferentially expressed in brain. *Int. J. Dev. Neurosci.* 15: 891-899.

## CHROMOSOMAL LOCATION

Genetic locus: ZNF238 (human) mapping to 1q44; Zfp238 (mouse) mapping to 1 H4.

## SOURCE

RP58 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of RP58 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-248479 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

RP58 (N-18) is recommended for detection of RP58 of mouse 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); non cross-reactive with other ZFP family members.

RP58 (N-18) is also recommended for detection of RP58 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RP58 siRNA (h): sc-88400, RP58 siRNA (m): sc-153094, RP58 shRNA Plasmid (h): sc-88400-SH, RP58 shRNA Plasmid (m): sc-153094-SH, RP58 shRNA (h) Lentiviral Particles: sc-88400-V and RP58 shRNA (m) Lentiviral Particles: sc-153094-V.

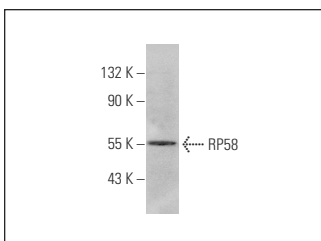
Molecular Weight of RP58: 58 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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



RP58 (N-18): sc-248479. Western blot analysis of RP58 expression in Jurkat whole cell lysate.

## RESEARCH USE

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