SANTA CRUZ BIOTECHNOLOGY, INC.

PATZ1 (P-17): sc-86778

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The Power to Question

BACKGROUND

Zinc finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc finger proteins contain a krüeppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. PATZ1 (POZ (BTB) and AT hook containing zinc finger 1), also known as PATZ, RIAZ, ZBTB19, ZNF278 or ZSG, is a 687 amino acid protein that localizes to the nucleus and contains one A.T hook DNA-binding domain, one BTB (POZ) domain and 7 C_2H_2-type zinc fingers. Expressed ubiquitously, PATZ1 functions as a transcriptional repressor and may be involved in the pathogenesis of small round cell sarcoma, as well as human colorectal cancer. Multiple isoforms of PATZ1 exist due to alternative splicing events.

REFERENCES

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2. Kobayashi, A., et al. 2000. A combinatorial code for gene expression generated by transcription factor BACH2 and MAZR (MAZ-related factor) through the BTB/POZ domain. Mol. Cell. Biol. 20: 1733-1746.
3. Mastrangelo, T., et al. 2000. A novel zinc finger gene is fused to EWS in small round cell tumor. Oncogene 19: 3799-3804.
4. Pero, R., et al. 2002. PATZ attenuates the RNF4-mediated enhancement of androgen receptor-dependent transcription. J. Biol. Chem. 277: 3280-3285.
5. Bilic, I., et al. 2006. Negative regulation of CD8 expression via Cd8 enhancer-mediated recruitment of the zinc finger protein MAZR. Nat. Immunol. 7: 392-400.
6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 605165. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Tian, X., et al. 2008. Zinc finger protein 278, a potential oncogene in human colorectal cancer. Acta Biochim. Biophys. Sin. 40: 289-296.
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CHROMOSOMAL LOCATION

Genetic locus: PATZ1 (human) mapping to 22q12.2; Patz1 (mouse) mapping to 11 A1.

SOURCE

PATZ1 (P-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of PATZ1 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.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86778 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-86778 X, 100 µg/0.1 ml.

APPLICATIONS

PATZ1 (P-17) is recommended for detection of PATZ1 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).

PATZ1 (P-17) is also recommended for detection of PATZ1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PATZ1 siRNA (h): sc-76072, PATZ1 siRNA (m): sc-152038, PATZ1 shRNA Plasmid (h): sc-76072-SH, PATZ1 shRNA Plasmid (m): sc-152038-SH, PATZ1 shRNA (h) Lentiviral Particles: sc-76072-V and PATZ1 shRNA (m) Lentiviral Particles: sc-152038-V.

PATZ1 (P-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PATZ1: 74 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.