

PATZ1 (D-5): sc-390577

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 krüppel-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 seven C₂H₂-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.

CHROMOSOMAL LOCATION

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

SOURCE

PATZ1 (D-5) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of PATZ1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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-390577 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.

APPLICATIONS

PATZ1 (D-5) is recommended for detection of PATZ1 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).

PATZ1 (D-5) is also recommended for detection of PATZ1 in additional species, including equine, canine and bovine.

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 (D-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

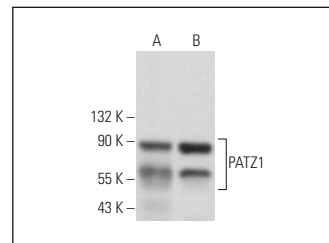
Molecular Weight of PATZ1: 74 kDa.

Positive Controls: PATZ1 (h): 293T Lysate: sc-369242, HL-60 whole cell lysate: sc-2209 or MOLT-4 cell lysate: sc-2233.

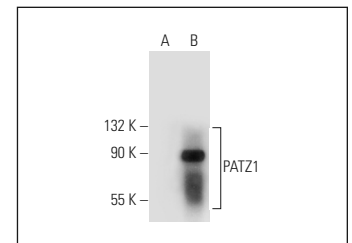
RECOMMENDED SUPPORT REAGENTS

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



PATZ1 (D-5): sc-390577. Western blot analysis of PATZ1 expression in HL-60 (A) and MOLT-4 (B) whole cell lysates.



PATZ1 (D-5): sc-390577. Western blot analysis of PATZ1 expression in non-transfected: sc-117752 (A) and human PATZ1 transfected: sc-369242 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Orolo, M.J., et al. 2019. The zinc-finger transcription factor MAZR regulates iNKT cell subset differentiation. *Cell. Mol. Life Sci.* 76: 4391-4404.
- Andersen, L., et al. 2019. The transcription factor MAZR/PATZ1 regulates the development of FOXP3⁺ regulatory T cells. *Cell Rep.* 29: 4447-4459.e6.
- Ng, Z.L., et al. 2021. PATZ1 (MAZR) co-occupies genomic sites with p53 and inhibits liver cancer cell proliferation via regulating p27. *Front. Cell Dev. Biol.* 9: 586150.
- Gulich, A.F., et al. 2021. Complex interplay between MAZR and Runx3 regulates the generation of cytotoxic T lymphocyte and memory T cells. *Front. Immunol.* 12: 535039.

RESEARCH USE

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

PROTOCOLS

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