

PATZ1 (H-2): sc-393223

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.

REFERENCES

1. Fedele, M., et al. 2000. A novel member of the BTB/POZ family, PATZ, associates with the RNF4 RING finger protein and acts as a transcriptional repressor. *J. Biol. Chem.* 275: 7894-7901.
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.

CHROMOSOMAL LOCATION

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

SOURCE

PATZ1 (H-2) 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 IgG₃ 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-393223 X, 200 µg/0.1 ml.

PATZ1 (H-2) is available conjugated to agarose (sc-393223 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393223 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393223 PE), fluorescein (sc-393223 FITC), Alexa Fluor® 488 (sc-393223 AF488), Alexa Fluor® 546 (sc-393223 AF546), Alexa Fluor® 594 (sc-393223 AF594) or Alexa Fluor® 647 (sc-393223 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393223 AF680) or Alexa Fluor® 790 (sc-393223 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PATZ1 (H-2) 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 (H-2) 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 (H-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

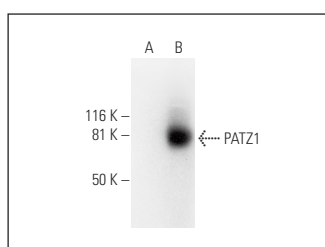
Molecular Weight of PATZ1: 74 kDa.

Positive Controls: PATZ1 (h): 293T Lysate: sc-369242.

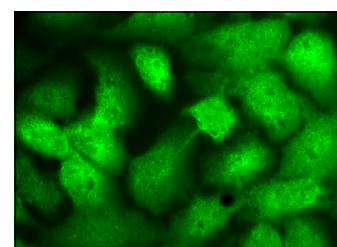
RECOMMENDED SUPPORT REAGENTS

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 (H-2): sc-393223. Western blot analysis of PATZ1 expression in non-transfected: sc-117752 (A) and human PATZ1 transfected: sc-369242 (B) 293T whole cell lysates.



PATZ1 (H-2): sc-393223. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Ortobozkoyun, H., et al. 2024. Members of an array of zinc-finger proteins specify distinct Hox chromatin boundaries. *Mol. Cell* 84: 3406-3422.e6.

RESEARCH USE

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