

# Dmap1 (B-10): sc-373949

## BACKGROUND

Methylation of DNA contributes to the regulation of gene transcription in eukaryotic systems. DNA methylation is predominantly found on cytosine residues that are present in dinucleotide motifs consisting of a 5' cytosine followed by a guanine (CpG), and it requires the enzymatic activity of DNA methyltransferases (DNMTs), which results in transcriptional repression of the methylated gene. DNA methyltransferase 1-associating protein (Dmap1) binds to methyl-CpG rich domains and mediate the transcriptional inhibition associated with DNA methylation. Dmap1 interacts with Daxx to enhanced Daxx-mediated repression of glucocorticoid receptor transcriptional activity. Daxx also protects Dmap1 from protein degradation *in vivo*.

## CHROMOSOMAL LOCATION

Genetic locus: DMAP1 (human) mapping to 1p34.1; Dmap1 (mouse) mapping to 4 D2.1.

## SOURCE

Dmap1 (B-10) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Dmap1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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-373949 X, 200 µg/0.1 ml.

Dmap1 (B-10) is available conjugated to agarose (sc-373949 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373949 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373949 PE), fluorescein (sc-373949 FITC), Alexa Fluor<sup>®</sup> 488 (sc-373949 AF488), Alexa Fluor<sup>®</sup> 546 (sc-373949 AF546), Alexa Fluor<sup>®</sup> 594 (sc-373949 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-373949 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-373949 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-373949 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

Dmap1 (B-10) is recommended for detection of Dmap1 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).

Suitable for use as control antibody for Dmap1 siRNA (h): sc-60543, Dmap1 siRNA (m): sc-60544, Dmap1 shRNA Plasmid (h): sc-60543-SH, Dmap1 shRNA Plasmid (m): sc-60544-SH, Dmap1 shRNA (h) Lentiviral Particles: sc-60543-V and Dmap1 shRNA (m) Lentiviral Particles: sc-60544-V.

Dmap1 (B-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

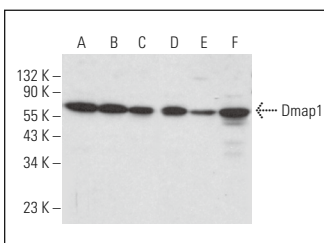
Molecular Weight of Dmap1: 53 kDa.

Positive Controls: IMR-32 nuclear extract: sc-2148, Ramos cell lysate: sc-2216 or SW480 nuclear extract: sc-2155.

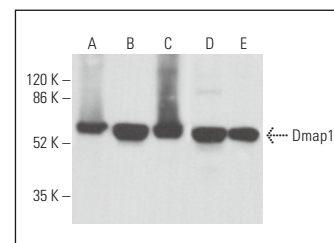
## RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



Dmap1 (B-10): sc-373949. Western blot analysis of Dmap1 expression in IMR-32 nuclear extract (A) and Ramos (B), NAMALWA (C), NCI-H460 (D), WI-38 (E) and 3T3-L1 (F) whole cell lysates.



Dmap1 (B-10): sc-373949. Western blot analysis of Dmap1 expression in IMR-32 (A) and SW480 (B) nuclear extracts and NIH/3T3 (C), A549 (D) and NTERA-2 cl.D1 (E) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

## SELECT PRODUCT CITATIONS

- Dittmar, G., et al. 2019. PRISMA: protein interaction screen on peptide matrix reveals interaction footprints and modifications- dependent interactome of intrinsically disordered C/EBPβ. *iScience* 13: 351-370.
- Vélot, L., et al. 2021. Proximity-dependent mapping of the androgen receptor identifies Krüppel-like factor 4 as a functional partner. *Mol. Cell. Proteomics* 20: 100064.
- Pollina, E.A., et al. 2023. A NPAS4-NuA4 complex couples synaptic activity to DNA repair. *Nature* 614: 732-741.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

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

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