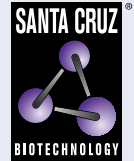


CD2AP (B-4): sc-25272



The Power to Question

BACKGROUND

CD2-associated protein (CD2AP) is a cytosolic adaptor molecule that complexes with the intracellular portion of CD2 upon T cell activation. T cell activation induces cell adhesion through CD2-mediated binding to surface ligands on antigen-presenting cells, which enhances antigen-specific T cell activation, potentiates cell clustering and induces cytoskeletal polarization. CD2AP is expressed at highest levels in liver, thymus and spleen. CD2AP contains three SH3 domains that are essential for the interaction with CD2. Mutations in CD2AP that impair this interaction result in the disruption of cell clustering and polarization in activated T lymphocytes. Mice deficient in CD2AP develop a lethal congenital nephrotic syndrome, indicating that CD2AP is also involved in maintaining the integrity of the renal glomerulus.

CHROMOSOMAL LOCATION

Genetic locus: CD2AP (human) mapping to 6p12.3.

SOURCE

CD2AP (B-4) is a mouse monoclonal antibody raised against amino acids 350-639 of CD2AP 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.

CD2AP (B-4) is available conjugated to agarose (sc-25272 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25272 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25272 PE), fluorescein (sc-25272 FITC), Alexa Fluor® 488 (sc-25272 AF488), Alexa Fluor® 546 (sc-25272 AF546), Alexa Fluor® 594 (sc-25272 AF594) or Alexa Fluor® 647 (sc-25272 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25272 AF680) or Alexa Fluor® 790 (sc-25272 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CD2AP (B-4) is recommended for detection of CD2AP of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), 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), immunohistochemistry (including paraffin-embedded sections) (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 CD2AP siRNA (h): sc-29984, CD2AP shRNA Plasmid (h): sc-29984-SH and CD2AP shRNA (h) Lentiviral Particles: sc-29984-V.

Molecular Weight of CD2AP: 90 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Hep G2 cell lysate: sc-2227 or Jurkat whole cell lysate: sc-2204.

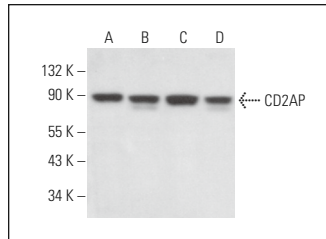
STORAGE

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

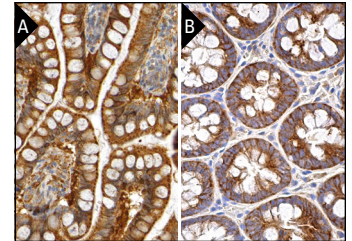
RESEARCH USE

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

DATA



CD2AP (B-4): sc-25272. Western blot analysis of CD2AP expression in A-431 (A), Jurkat (B), Hep G2 (C) and SUP-T1 (D) whole cell lysates. Detection reagent used: m-IgGκc BP-HRP: sc-516102.



CD2AP (B-4): sc-25272. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

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- Marivin, A., et al. 2022. DAPLE orchestrates apical actomyosin assembly from junctional polarity complexes. *J. Cell Biol.* 221: e202111002.
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- Kumar, V., et al. 2024. APOL1 modulates renin-angiotensin system. *Biomolecules* 14: 1575.

PROTOCOLS

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

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