

# CD2AP (L-20): sc-34229

## 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.

## REFERENCES

1. Shaw, A.S. and Dustin, M.L. 1997. Making the T cell receptor go the distance: a topological view of T cell activation. *Immunity* 6: 361-369.
2. Dustin, M.L., et al. 1998. A novel adaptor protein orchestrates receptor patterning and cytoskeletal polarity in T cell contacts. *Cell* 94: 667-677.

## CHROMOSOMAL LOCATION

Genetic locus: CD2AP (human) mapping to 6p12.3; Cd2ap (mouse) mapping to 17 B3.

## SOURCE

CD2AP (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CD2AP of rat origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34229 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CD2AP (L-20) is recommended for detection of CD2AP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 CD2AP siRNA (h): sc-29984, CD2AP siRNA (m): sc-29985, CD2AP siRNA (r): sc-270133, CD2AP shRNA Plasmid (h): sc-29984-SH, CD2AP shRNA Plasmid (m): sc-29985-SH, CD2AP shRNA Plasmid (r): sc-270133-SH, CD2AP shRNA (h) Lentiviral Particles: sc-29984-V, CD2AP shRNA (m) Lentiviral Particles: sc-29985-V and CD2AP shRNA (r) Lentiviral Particles: sc-270133-V.

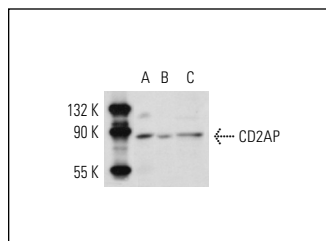
Molecular Weight of CD2AP: 90 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, Hep G2 cell lysate: sc-2227 or NRK whole cell lysate: sc-364197.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CD2AP (L-20): sc-34229. Western blot analysis of CD2AP expression in MOLT-4 (A), Hep G2 (B) and NRK (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Zhang, B., et al. 2012. The calcineurin-NFAT pathway allows for urokinase receptor-mediated β3 integrin signaling to cause podocyte injury. *J. Mol. Med.* 90: 1407-1420.

## 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) or our catalog for detailed protocols and support products.

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Try **CD2AP (B-4): sc-25272**, our highly recommended monoclonal alternative to CD2AP (L-20).