

CD229 (3H1998): sc-70591

BACKGROUND

T lymphocyte surface antigen Ly9 (CD229), also designated lymphocyte antigen 9 or cell-surface molecule Ly9, is a cell surface glycoprotein. CD229 is a Type I membrane protein that is crucial in adhesion reactions between T lymphocytes and accessory cells (homophilic interaction). It belongs to the CD2 subfamily of the immunoglobulin gene superfamily of proteins (along with CD2, CD48, CD58, CD84, CD244 and CD150). Receptors of this family are important in cytokine production regulation and cytotoxicity of lymphocytes and NK cells. CD229 interacts with the SAP/SH2D1A protein. CD229 is ex-pressed on mature B cells, T cells, thymocytes and NK cells.

REFERENCES

- Sandrin, M.S., Gumley, T.P., Henning, M.M., Vaughan, H.A., Gonez, L.J., Trapani, J.A. and McKenzie, I.F. 1992. Isolation and characterization of cDNA clones for mouse Ly9. *J. Immunol.* 149: 1636-1641.
- Sandrin, M.S., Henning, M.M., Lo, M.F., Baker, E., Sutherland, G.R. and McKenzie, I.F. 1996. Isolation and characterization of cDNA clones for Humly9: the human homologue of mouse Ly9. *Immunogenetics* 43: 13-19.
- Tovar, V., de la Fuente, M.A., Pizcueta, P., Bosch, J. and Engel, P. 2000. Gene structure of the mouse leukocyte cell surface molecule Ly9. *Immunogenetics* 51: 788-793.
- Martin, M., Del Valle, J.M., Saborit, I. and Engel, P. 2005. Identification of Grb2 as a novel binding partner of the signaling lymphocytic activation molecule-associated protein binding receptor CD229. *J. Immunol.* 174: 5977-5986.
- Romero, X., Zapater, N., Calvo, M., Kalko, S.G., de la Fuente, M.A., Tovar, V., Ockeloen, C., Pizcueta, P. and Engel, P. 2005. CD229 (Ly9) lymphocyte cell surface receptor interacts homophilically through its N-terminal domain and relocalizes to the immunological synapse. *J. Immunol.* 174: 7033-7042.
- SWISS-PROT/TrEMBL (Q9HBG7). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: LY9 (human) mapping to 1q23.3.

SOURCE

CD229 (3H1998) is a mouse monoclonal antibody raised against CD229 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.

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.

APPLICATIONS

CD229 (3H1998) is recommended for detection of CD229 cell surface antigen of 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)] and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD229 siRNA (h): sc-44551, CD229 shRNA Plasmid (h): sc-44551-SH and CD229 shRNA (h) Lentiviral Particles: sc-44551-V.

Molecular Weight of CD229: 100-120 kDa.

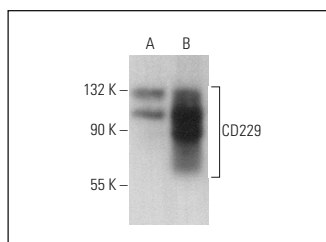
Positive Controls: Daudi cell lysate: sc-2415, CCRF-CEM cell lysate: sc-2225 or SUP-T1 whole cell lysate: sc-364796.

RECOMMENDED SUPPORT REAGENTS

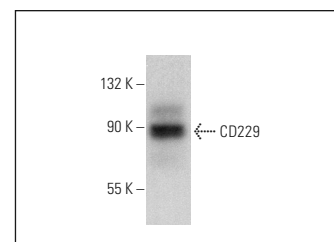
To ensure optimal results, the following support reagents are recommended:

- 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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 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



CD229 (3H1998): sc-70591. Western blot analysis of CD229 expression in Daudi (A) and CCRF-CEM (B) whole cell lysates.



CD229 (3H1998): sc-70591. Western blot analysis of CD229 expression in SUP-T1 whole cell lysate.

PROTOCOLS

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