

# CD229 (Ly9ab3): sc-101621

## 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 expressed on mature B cells, T cells, thymocytes and NK cells.

## REFERENCES

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. SWISS-PROT/TrEMBL (Q9HBG7). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

## CHROMOSOMAL LOCATION

Genetic locus: Ly9 (mouse) mapping to 1 H3.

## SOURCE

CD229 (Ly9ab3) is a Armenian hamster monoclonal antibody raised against AHK cells transfected with CD229 of mouse origin.

## PRODUCT

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

CD229 (Ly9ab3) is available conjugated to either phycoerythrin (sc-101621 PE) or fluorescein (sc-101621 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

## STORAGE

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

## APPLICATIONS

CD229 (Ly9ab3) is recommended for detection of CD229 of mouse origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for CD229 siRNA (m): sc-44570, CD229 shRNA Plasmid (m): sc-44570-SH and CD229 shRNA (m) Lentiviral Particles: sc-44570-V.

Molecular Weight of CD229: 100-120 kDa.

## 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.