

CD229 (HLy 9.1.25): sc-58992

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

- Sandrin, M.S., et al. 1992. Isolation and characterization of cDNA clones for mouse Ly9. *J. Immunol.* 149: 1636-1641.
- Sandrin, M.S., et al. 1996. Isolation and characterization of cDNA clones for Humly9: the human homologue of mouse Ly9. *Immunogenetics* 43: 13-19.
- Tovar, V., et al. 2000. Gene structure of the mouse leukocyte cell surface molecule Ly9. *Immunogenetics* 51: 788-793.
- Martin, M., et al. 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., et al. 2005. CD229 (Ly9) lymphocyte cell surface receptor interacts homophilically through its N-terminal domain and relocates 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 (HLy 9.1.25) is a mouse monoclonal antibody raised against pre-B cell line 300.19 transfected with CD229 cDNA 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.

CD229 (HLy 9.1.25) is available conjugated to agarose (sc-58992 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-58992 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58992 PE), fluorescein (sc-58992 FITC), Alexa Fluor[®] 488 (sc-58992 AF488), Alexa Fluor[®] 546 (sc-58992 AF546), Alexa Fluor[®] 594 (sc-58992 AF594) or Alexa Fluor[®] 647 (sc-58992 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-58992 AF680) or Alexa Fluor[®] 790 (sc-58992 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD229 (HLy 9.1.25) is recommended for detection of CD229 cell surface antigen of human origin by Western Blotting (starting dilution 1:200, dilution range 1:1000-1:10000), 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.

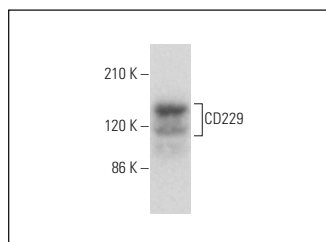
Molecular Weight of CD229: 100-120 kDa.

Positive Controls: Daudi cell lysate: sc-2415, NAMALWA cell lysate: sc-2234 or NK-92 whole cell lysate: sc-364788.

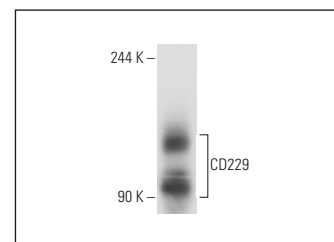
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] 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).

DATA



CD229 (HLy 9.1.25): sc-58992. Western blot analysis of CD229 expression in NAMALWA whole cell lysate.



CD229 (HLy 9.1.25): sc-58992. Western blot analysis of CD229 expression in Daudi whole cell lysate.

SELECT PRODUCT CITATIONS

- Atanackovic, D., et al. 2011. Surface molecule CD229 as a novel target for the diagnosis and treatment of multiple myeloma. *Haematologica* 96: 1512-1520.

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 for detailed protocols and support products.