SANTA CRUZ BIOTECHNOLOGY, INC.

CD9 (SN4/C3-3A2): sc-65251

BACKGROUND

CD9 is a type IV transmembrane glycoprotein with four transmembrane domains. CD9 on pre-B cells may play a role in cell-cell adhesion. In addition, CD9 may play a role in signal transduction mediated by interaction with low molecular weight GTP binding proteins. CD9 is expressed on early B cells, eosinophils, basophils and activated T cells and is a major component of the platelet cell surface. It is also expressed on most non-T acute lymphoblastic leukemia cells and on some acute myeloid and chronic lymphoid leukemias.

REFERENCES

1. Seehafer, J.G., et al. 1991. Evidence that the signal-initiating membrane protein CD9 is associated with small GTP-binding proteins. Biochem. Biophys. Res. Commun. 179: 401-406.
2. Lanza, F., et al. 1991. cDNA cloning and expression of platelet p24/CD9. Evidence for a new family of multiple membrane-spanning proteins. J. Biol. Chem. 266: 10638-10645.
3. Ferrero, D., et al. 1991. CD9 antigen on acute non-lymphoid leukemia cells: preferential expression by promyelocytic (M3) subtype. Leuk. Res. 15: 457-461.
4. Wright, M.D., et al. 1994. The ins and outs of the transmembrane 4 superfamily. Immunol. Today 15: 588-594.
5. Masellis-Smith, A., et al. 1994. CD9-regulated adhesion. Anti-CD9 monoclonal antibody induce pre-B cell adhesion to bone marrow fibroblasts through *de novo* recognition of Fibronectin. J. Immunol. 152: 2768-2777.
6. Xu, M., et al. 1994. Regulation of CD9 expression during 12-0-tetradecanoyl-phorbol-13-acetate-induced differentiation of human Myeloid leukemia (HL-60) cells. Cell Growth Differ. 5: 1225-1234.
7. Nakamura, K., et al. 1995. Membrane-anchored heparin-binding EGF-like growth factor (HB-EGF) and diphtheria toxin receptor-associated protein (DRAP27)/CD9 form a complex with Integrin $\alpha 3\beta 1$ at cell-cell contact sites. J. Cell Biol. 129: 1691-1705.
8. Slupsky, J.R., et al. 1997. Analysis of CD9, CD32 and p67 signalling; use of degranulated platelets indicates direct involvement of CD9 and p67 in integrin activation. Br. J. Haemotol. 96: 275-286.

CHROMOSOMAL LOCATION

Genetic locus: CD9 (human) mapping to 12p13.31.

SOURCE

CD9 (SN4/C3-3A2) is a mouse monoclonal antibody raised against membrane antigen preparation of NALM-6 cell line of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD9 (SN4/C3-3A2) is available conjugated fluorescein (sc-65251 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

APPLICATIONS

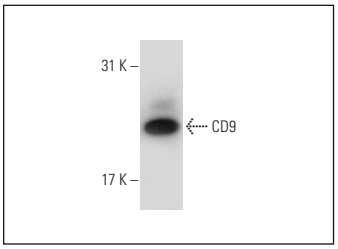
CD9 (SN4/C3-3A2) is recommended for detection of CD9 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for CD9 siRNA (h): sc-35032, CD9 shRNA Plasmid (h): sc-35032-SH and CD9 shRNA (h) Lentiviral Particles: sc-35032-V.

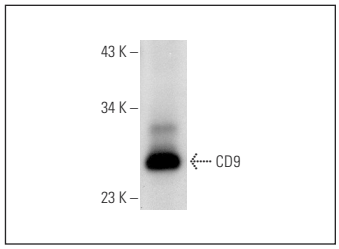
Molecular Weight of CD9: 24 kDa.

Positive Controls: BT-20 cell lysate: sc-2223, ZR-75-1 cell lysate: sc-2241 or HeLa whole cell lysate: sc-2200.

DATA



CD9 (SN4/C3-3A2): sc-65251. Western blot analysis of CD9 expression in HeLa whole cell lysate.



CD9 (SN4/C3-3A2): sc-65251. Western blot analysis of CD9 expression in human PBL whole cell lysate.

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.

CONJUGATES

See **CD9 (C-4): sc-13118** for CD9 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.