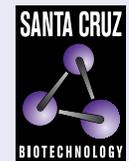


# CD9 (P1/33/2): sc-20048



The Power to Question

## 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. Ferrero, D., et al. 1991. CD9 antigen on acute non-lymphoid leukemia cells: preferential expression by promyelocytic (M3) subtype. *Leuk. Res.* 15: 457-461.
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. 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.

## CHROMOSOMAL LOCATION

Genetic locus: CD9 (human) mapping to 12p13.31; Cd9 (mouse) mapping to 6 F3.

## SOURCE

CD9 (P1/33/2) is a mouse monoclonal antibody raised against common acute lymphoblastic leukemia.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CD9 (P1/33/2) is recommended for detection of CD9 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for CD9 siRNA (h): sc-35032, CD9 siRNA (m): sc-37252, CD9 shRNA Plasmid (h): sc-35032-SH, CD9 shRNA Plasmid (m): sc-37252-SH, CD9 shRNA (h) Lentiviral Particles: sc-35032-V and CD9 shRNA (m) Lentiviral Particles: sc-37252-V.

Molecular Weight of CD9: 24 kDa.

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

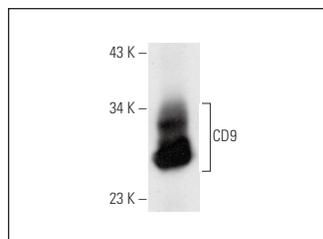
## STORAGE

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

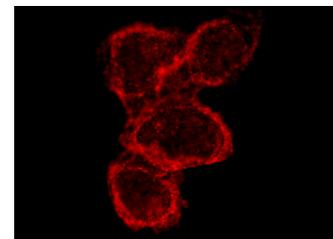
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



CD9 (P1/33/2): sc-20048. Western blot analysis of CD9 expression in human PBL whole cell lysate.



CD9 (P1/33/2): sc-20048. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining.

## SELECT PRODUCT CITATIONS

1. Taghizadeh, R., et al. 2010. CXCR6, a newly defined biomarker of tissue-specific stem cell asymmetric self-renewal, identifies more aggressive human melanoma cancer stem cells. *PLoS ONE* 5: e15183.
2. Espinosa, A.M., et al. 2013. Mitosis is a source of potential markers for screening and survival and therapeutic targets in cervical cancer. *PLoS ONE* 8: e55975.
3. Rappa, G., et al. 2014. The nuclear pool of tetraspanin CD9 contributes to mitotic processes in human breast carcinoma. *Mol. Cancer Res.* 12: 1840-1850.
4. Rappa, G., et al. 2015. Tetraspanin CD9 determines invasiveness and tumorigenicity of human breast cancer cells. *Oncotarget* 6: 7970-7991.
5. Pérez-Boza, J., et al. 2018. Exploring the RNA landscape of endothelial exosomes. *RNA* 24: 423-435.
6. Santos, M.F., et al. 2019. Anti-human CD9 antibody Fab fragment impairs the internalization of extracellular vesicles and the nuclear transfer of their cargo proteins. *J. Cell. Mol. Med.* 23: 4408-4421.
7. Cone, A.S., et al. 2020. Alix and syntenin-1 direct amyloid precursor protein trafficking into extracellular vesicles. *BMC Mol. Cell Biol.* 21: 58.
8. Pérez-Boza, J., et al. 2020. hnRNPA2B1 inhibits the exosomal export of miR-503 in endothelial cells. *Cell. Mol. Life Sci.* 77: 4413-4428.
9. Fontaine, M., et al. 2021. Extracellular vesicles mediate communication between endothelial and vascular smooth muscle cells. *Int. J. Mol. Sci.* 23: 331.
10. Yang, J., et al. 2022. Extracellular vesicles-encapsulated microRNA-29b-3p from bone marrow-derived mesenchymal stem cells promotes fracture healing via modulation of the PTEN/PI3K/AKT axis. *Exp. Cell Res.* 412: 113026.



See **CD9 (C-4): sc-13118** for CD9 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.