SANTA CRUZ BIOTECHNOLOGY, INC.

CD9 (H-110): sc-9148

SANTA CRUZ BIOTECHNOLOGY

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.
4. 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.

CHROMOSOMAL LOCATION

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

SOURCE

CD9 (H-110) is a rabbit polyclonal antibody raised against amino acids 101-210 of CD9 of human origin.

PRODUCT

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

APPLICATIONS

CD9 (H-110) 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

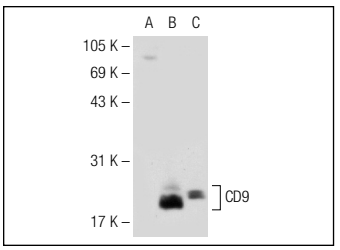
Molecular Weight of CD9: 24 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, ZR-75-1 cell lysate: sc-2241 or CD9 (h3): 293T Lysate: sc-113009.

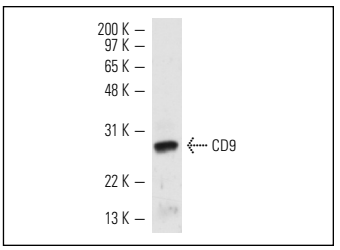
STORAGE

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

DATA



CD9 (H-110): sc-9148. Western blot analysis of CD9 expression in non-transfected 293T: sc-117752 (**A**), human CD9 transfected 293T: sc-113009 (**B**) and HeLa (**C**) whole cell lysates.



CD9 (H-110): sc-9148. Western blot analysis of CD9 expression in human PBL whole cell lysate.

SELECT PRODUCT CITATIONS

1. Nydegger, S., et al. 2006. Mapping of tetraspanin-enriched microdomains that can function as gateways for HIV-1. J. Cell Biol. 173: 795-807.
2. Kato, K., et al. 2007. Characterization of side-population cells in human normal endometrium. Hum. Reprod. 22: 1214-1223.
3. Choi, H.S., et al. 2008. Development of a decoy immunization strategy to identify cell-surface molecules expressed on undifferentiated human embryonic stem cells. Cell. Tissue Res. 333: 197-206.
4. Kotha, J., et al. 2009. Functional relevance of tetraspanin CD9 in vascular smooth muscle cell injury phenotypes: a novel target for the prevention of neointimal hyperplasia. Atherosclerosis 203: 377-386.
5. Barreto, A., et al. 2010. Membrane vesicles released by intestinal epithelial cells infected with rotavirus inhibit T-cell function. Viral Immunol. 23: 595-608.
6. Kato, K., et al. 2010. Endometrial cancer side-population cells show prominent migration and have a potential to differentiate into the mesenchymal cell lineage. Am. J. Pathol. 176: 381-392.
7. Raposo, R.A., et al. 2011. Proteomic-based identification of CD4-interacting proteins in human primary macrophages. PLoS ONE 6: e18690.
8. Guilmain, W., et al. 2011. CD9P-1 expression correlates with the metastatic status of lung cancer, and a truncated form of CD9P-1, GS-168AT2, inhibits *in vivo* tumour growth. Br. J. Cancer 104: 496-504.

RESEARCH USE

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

PROTOCOLS

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