SANTA CRUZ BIOTECHNOLOGY, INC.

CD9 (KMC8.8): sc-18869

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.

CHROMOSOMAL LOCATION

Genetic locus: Cd9 (mouse) mapping to 6 F3.

SOURCE

CD9 (KMC8.8) is a rat monoclonal antibody raised against BMS2 bone marrow stromal cells of murine origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking, sc-18869 L, 200 µg/ 0.1 ml.

CD9 (KMC8.8) is available conjugated to agarose (sc-18869 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-18869 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-18869 PE), fluorescein (sc-18869 FITC), Alexa Fluor® 488 (sc-18869 AF488), Alexa Fluor® 546 (sc-18869 AF546), Alexa Fluor® 594 (sc-18869 AF594) or Alexa Fluor® 647 (sc-18869 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-18869 AF680) or Alexa Fluor® 790 (sc-18869 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CD9 (KMC8.8) is recommended for detection of CD9 of mouse 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), immunohistochemistry (including paraffin-embedded sections) (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 (m): sc-37252, CD9 shRNA Plasmid (m): sc-37252-SH and CD9 shRNA (m) Lentiviral Particles: sc-37252-V.

Molecular Weight of CD9: 24 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243 or B16-F0 cell lysate: sc-2298.

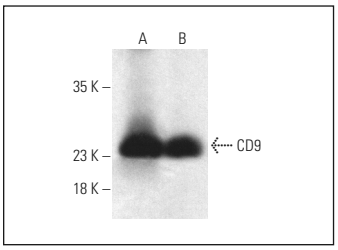
STORAGE

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

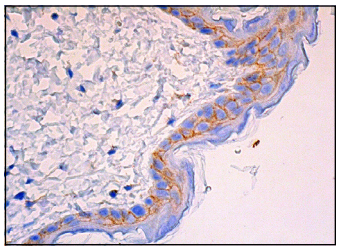
RESEARCH USE

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

DATA



CD9 (KMC8.8) HRP: sc-18869 HRP. Direct Western blot analysis of CD9 expression in non-reduced 3T3-L1 (**A**) and non-reduced B16-F0 (**B**) whole cell lysates.



CD9 (KMC8.8): sc-18869. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse skin tissue showing membrane staining of epidermal cells.

SELECT PRODUCT CITATIONS

1. Miura, Y., et al. 2004. Reversion of the Jun-induced oncogenic phenotype by enhanced synthesis of sialosyllactosylceramide (GM3 ganglioside). Proc. Natl. Acad. Sci. USA 46: 16204-16209.
2. Singh, A., et al. 2016. Exosome-mediated transfer of $\alpha_v\beta_3$ Integrin from tumorigenic to nontumorigenic cells promotes a migratory phenotype. Mol. Cancer Res. 14: 1136-1146.
3. Wu, K.Z., et al. 2017. Junctional adhesion molecule A: expression in the murine epididymal tract and accessory organs and acquisition by maturing sperm. Mol. Hum. Reprod. 23: 132-140.
4. Fereshteh, Z., et al. 2018. Murine oviductosomes (OVS) microRNA profiling during the estrous cycle: delivery of OVS-borne microRNAs to sperm where miR-34c-5p localizes at the centrosome. Sci. Rep. 8: 16094.
5. Wang, V.M., et al. 2019. CD9 identifies pancreatic cancer stem cells and modulates glutamine metabolism to fuel tumour growth. Nat. Cell Biol. 21: 1425-1435.
6. Quaglia, F., et al. 2020. Small extracellular vesicles modulated by $\alpha_v\beta_3$ Integrin induce neuroendocrine differentiation in recipient cancer cells. J. Extracell. Vesicles 9: 1761072.
7. Oh, J., et al. 2021. Mesenchymal stem cells genetically engineered to express platelet-derived growth factor and heme oxygenase-1 ameliorate osteoarthritis in a canine model. J. Orthop. Surg. Res. 16: 43.
8. Rizzuto, G., et al. 2022. Establishment of fetomaternal tolerance through glycan-mediated B cell suppression. Nature 603: 497-502.
9. Guo, J., et al. 2023. Selective translation of maternal mRNA by eIF4E1B controls oocyte to embryo transition. Adv. Sci. 10: e2205500.

PROTOCOLS

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