

CD109 (M-250): sc-134459

BACKGROUND

CD109 is a glycosylphosphatidylinositol (GPI)-linked cell surface glycoprotein. It is a member of the α -macroglobulin/C3, C4, C5 family of thioester-containing proteins. The protein is expressed by CD34⁺ acute myeloid leukemia cell lines, activated T lymphoblasts, activated platelets, T cell lines, endothelial cells, lung and esophageal squamous cell carcinomas, testis and T cell lines. It has all the characteristics of a cancer-testis antigen. CD109 carries the platelet-specific Gov antigen system which is involved in platelet transfusion refraction, neonatal alloimmune thrombocytopenia and post-transfusion purpura.

REFERENCES

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2. Kelton, J.G., et al. 1990. Gova/b alloantigen system on human platelets. *Blood* 75: 2172-2176.
3. Lin, M., et al. 2002. Cell surface antigen CD109 is a novel member of the α_2 -macroglobulin/C3, C4, C5 family of thioester-containing proteins. *Blood* 99: 1683-1691.
4. Schuh, A.C., et al. 2002. A tyrosine703serine polymorphism of CD109 defines the Gov platelet alloantigens. *Blood* 99: 1692-1698.
5. Giesert, C., et al. 2003. Antibody W7C5 defines a CD109 epitope expressed on CD34⁺ and CD34⁻ hematopoietic and mesenchymal stem cell subsets. *Ann. N.Y. Acad. Sci.* 996227-996230.
6. Solomon, K.R., et al. 2004. CD109 represents a novel branch of the α_2 -macroglobulin/complement gene family. *Gene* 327: 171-183.
7. Zhang, J.M., et al. 2005. CD109 expression in squamous cell carcinoma of the uterine cervix. *Pathol. Int.* 55: 165-169.

CHROMOSOMAL LOCATION

Genetic locus: CD109 (human) mapping to 6q13; Cd109 (mouse) mapping to 9 E1.

SOURCE

CD109 (M-250) is a rabbit polyclonal antibody raised against amino acids 341-590 mapping within an internal region of CD109 of mouse origin.

PRODUCT

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

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.

APPLICATIONS

CD109 (M-250) is recommended for detection of CD109 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 CD109 siRNA (h): sc-44950, CD109 siRNA (m): sc-44951, CD109 shRNA Plasmid (h): sc-44950-SH, CD109 shRNA Plasmid (m): sc-44951-SH, CD109 shRNA (h) Lentiviral Particles: sc-44950-V and CD109 shRNA (m) Lentiviral Particles: sc-44951-V.

Molecular Weight of CD109: 170 kDa.

Positive Controls: rat testis extract: sc-2400 or mouse testis extract: sc-2405.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Mii, S., et al. 2012. Epidermal hyperplasia and appendage abnormalities in mice lacking CD109. *Am. J. Pathol.* 181: 1180-1189.

PROTOCOLS

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


 MONOS
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Try **CD109 (C-9): sc-271085** or **CD109 (H-7): sc-365780**, our highly recommended monoclonal alternatives to CD109 (M-250).