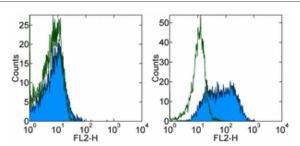


# Anti-Human CD109 Purified

Catalog Number: 14-1099 RUO: For Research Use Only



Staining of unstimulated (left) or 3-day PHA-stimulated (right) normal human peripheral blood cells with 0.125  $\mu g$  of Mouse IgG1  $\kappa$  Isotype Control Purified (cat. 14-4714) (open histogram) or 0.125  $\mu g$  of Anti-Human CD109 Purified (filled histogram) followed by F(ab')2 Anti-Mouse IgG PE (cat. 12-4012). Total viable cells were used for analysis.

## **Product Information**

Contents: Anti-Human CD109 Purified

REF Catalog Number: 14-1099

Clone: HU17

Concentration: 0.5 mg/ml Host/Isotype: Mouse IgG1, κ Formulation: aqueous buffer, 0.09% sodium azide, may contain

carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C.

Batch Code: Refer to Vial

Use By: Refer to Vial

Caution, contains Azide

#### Description

The HU17 monoclonal antibody reacts with human CD109, also known as the platelet-specific Gov antigen. CD109, a GPI-anchored monomeric glycoprotein, exists in two isoforms of 120 and 150 kDa, which are proteolytically degraded from a 170 kDa form. CD109 is expressed on activated T cells, activated platelets and endothelial cells. CD109 expression is also found on a subset of CD34+ cells in adult and fetal bone marrow which contain megakaryocyte, myeloid, erythroid and multilineage progenitors, as well as pluriopotent hematopoietic stem cells. Recently, it has been demonstrated that CD109 is expressed on a variety of human cancer cell lines, and also lung and esophogeal cell carcinomas. In addition, CD109 was recently found to be a negative regulator of TGF-β in keratinocytes.

#### **Applications Reported**

This HU17 antibody has been reported for use in flow cytometric analysis, and immunoprecipitation.

### **Applications Tested**

This HU17 antibody has been tested by flow cytometric analysis of normal human peripheral blood. This can be used at less than or equal to 0.25  $\mu$ g per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

## References

Finnson KW, Tam BY, Liu K, Marcoux A, Lepage P, Roy S, Bizet AA, Philip A. Identification of CD109 as part of the TGF-beta receptor system in human keratinocytes. FASEB J. 2006 Jul;20(9):1525-7.

Hashimoto M, Ichihara M, Watanabe T, Kawai K, Koshikawa K, Yuasa N, Takahashi T, Yatabe Y, Murakumo Y, Zhang JM, Nimura Y, Takahashi M. Expression of CD109 in human cancer. Oncogene. 2004 Apr 29;23(20):3716-20.

Giesert C, Marxer A, Sutherland DR, Schuh AC, Kanz L, Buhring HJ. Antibody W7C5 defines a CD109 epitope expressed on CD34+ and CD34-hematopoietic and mesenchymal stem cell subsets. Ann N Y Acad Sci. 2003 May;996:227-30.

Lin M, Sutherland DR, Horsfall W, Totty N, Yeo E, Nayar R, Wu XF, Schuh AC. Cell surface antigen CD109 is a novel member of the alpha(2) macroglobulin/C3, C4, C5 family of thioester-containing proteins. Blood. 2002 Mar 1;99(5):1683-91.

Schuh AC, Watkins NA, Nguyen Q, Harmer NJ, Lin M, Prosper JY, Campbell K, Sutherland DR, Metcalfe P, Horsfall W, Ouwehand WH. A tyrosine703serine polymorphism of CD109 defines the Gov platelet alloantigens. Blood. 2002 Mar 1;99(5):1692-8.

Murray LJ, Bruno E, Uchida N, Hoffman R, Nayar R, Yeo EL, Schuh AC, Sutherland DR. CD109 is expressed on a subpopulation of CD34+ cells enriched in hematopoietic stem and progenitor cells. Exp Hematol. 1999 Aug;27(8):1282-94.

**Related Products** 

11-4011 Anti-Mouse IgG FITC

11-4317 Streptavidin FITC

12-4317 Streptavidin PE

13-4013 Anti-Mouse IgG Biotin (Polyclonal)

14-4714 Mouse IgG1 K Isotype Control Purified

17-4317 Streptavidin APC

Not for further distribution without written consent. Copyright © 2000-2010 eBioscience, Inc.

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.eBioscience.com • info@eBioscience.com