

Code No. 28061

**Anti-Human
CD109 (1383) Rabbit IgG Affinity Purify**

Volume : 100 µg

Introduction : CD109 is a glycosyl-phosphatidyl-inositol (GPI) - anchored glycoprotein about 180 - 190 kDa. It is shown that CD109 is expressed in vascular endothelial cells, some epithelial cells, activated T-cells and platelets, and subset of CD34+ megakaryocytic leukemia cells. CD109 molecules are strongly expressed in KG1a cells, while CD34+CD109+ cells in fetal bone marrow include almost all myelocytic, erythroblastic and megakaryocytic precursor cells. For this reason, CD109 is considered to be a marker of megakaryocytic hematopoiesis in early stage. And CD109 is considered different from existing activation marker of leukocyte and platelet because of its structure and serological features.

By a report of Takahashi *et al.*, CD109 is significantly over expressed in squamous cell carcinoma such as lung carcinoma, esophageal carcinoma and uterine cervical carcinoma. Thus, it is attracting attention in study of squamous cell carcinoma.

Antigen : Synthetic peptide of a part of Human CD109

Purification : Purified with antigen peptide

Form : Lyophilized product from 1% BSA in PBS containing 0.05% NaN₃

How to use : 1.0 mL deionized water will be added to the product (the conc. comes up 100 µg /mL)

Stability : Lyophilized product, 5 years at 2 – 8 °C
: Solution, 2 years at –20 °C

Application : This antibody can be stained in formalin fixed paraffin embedded tissues after microwave treatment by several Immunohistochemical techniques such as Avidin Biotin Complex (ABC) Method. The optimal dilution is 1 - 5 µg/mL, however, the dilution rate should be optimized by each laboratories.

: This antibody can be used for western blotting in concentration of 1 - 5 µg /mL.

: This antibody can be used for immuno-precipitation in concentration of 5 µg /mL.

- Reference** :
1. Hasegawa M, Moritani S, Murakumo Y, Sato T, Hagiwara S, Suzuki C, Mii S, Jijiwa M, Enomoto A, Asai N, Ichihara S, Takahashi M. CD109 expression in basal-like breast carcinoma. *Pathol Int.* 2008 May;58(5):288-94.
 2. Sato T, Murakumo Y, Hagiwara S, Jijiwa M, Suzuki C, Yatabe Y, Takahashi M. High-level expression of CD109 is frequently detected in lung squamous cell carcinomas. *Pathol Int.* 2007 Nov;57(11):719-24.
 3. Hasegawa M, Hagiwara S, Sato T, Jijiwa M, Murakumo Y, Maeda M, Moritani S, Ichihara S, Takahashi M. CD109, a new marker for myoepithelial cells of mammary, salivary, and lacrimal glands and prostate basal cells. *Pathol Int.* 2007 May;57(5):245-50.
 4. Zhang JM, Hashimoto M, Kawai K, Murakumo Y, Sato T, Ichihara M, Nakamura S, Takahashi M. CD109 expression in squamous cell carcinoma of the uterine cervix. *Pathol Int.* 2005 Apr;55(4):165-9.
 5. 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.

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Immuno-Biological Laboratories, Inc. Toll-Free: 888-523-1246

8201 Central Ave NE, Suite P

Minneapolis, MN 55432

Email: info@IBL-America.com

Web: www.IBL-America.com