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Datasheet

CD97 monoclonal antibody, clone MEM-180 (FITC)

Catalog Number: MAB5039

Regulatory Status: For research use only (RUO)

Product Description: Mouse monoclonal antibody raised against native CD97.

Clone Name: MEM-180

Immunogen: Native purified CD97 from PHA-activated peripheral blood cells.

Host: Mouse

Theoretical MW (kDa): 75-85

Reactivity: Human

Applications: Flow Cyt
(See our web site product page for detailed applications information)

Protocols: See our web site at http://www.abnova.com/support/protocols.asp or product page for detailed protocols

Specificity: This antibody recognizes an unique epitope on CD97, a 75-85 KDa surface glycoprotein of G-protein-coupled receptor family, expressed on activated B and T lymphocytes, monocytes/macrophages, dendritic cells and granulocytes.

Form: Liquid

Conjugation: FITC

Isotype: IgG1

Recommend Usage: Flow Cytometry (20 ul in human blood cells 100 ul in whole blood or 10^6 cells in a suspension)
The optimal working dilution should be determined by the end user.

Storage Buffer: In PBS (0.2% BSA, 0.09% sodium azide)

Storage Instruction: Store in the dark at 4°C. Do not freeze.
Avoid prolonged exposure to light.
Aliquot to avoid repeated freezing and thawing.

Entrez GeneID: 976

Gene Symbol: CD97

Gene Alias: TM7LN1

Gene Summary: This gene is a member of the EGF-TM7 family of class II seven-span transmembrane (7-TM) molecules, likely encoded by a gene cluster on the short arm of chromosome 19. The encoded product is a glycoprotein that is present on the surface of most activated leukocytes and spans the membrane seven times, which is a defining feature of G protein-coupled receptors. The protein has an extended extracellular region with several N-terminal epidermal growth factor (EGF)-like domains, which mediate binding to its cellular ligand, decay accelerating factor (DAF, CD55), a regulatory protein of the complement cascade. The presence of structural features characteristic of extracellular matrix proteins and transmembrane proteins suggests that this protein is a receptor involved in both cell adhesion and signaling processes early after leukocyte activation. Alternative splicing has been observed for this gene and three variants have been found. [provided by RefSeq]

References:

1. Structural and functional characterization of a novel T cell receptor co-regulatory protein complex, CD97-CD55. Abbott RJ, Spendlove I, Roversi P, Fitzgibbon H, Knott V, Teriete P, McDonnell JM, Handford PA, Lea SM. J Biol Chem. 2007 Jul 27;282(30):22023-32. Epub 2007 Apr 20.
2. Improved antibacterial host defense and altered peripheral granulocyte homeostasis in mice lacking the adhesion class G protein receptor CD97. Wang T, Tian L, Haino M, Gao JL, Lake R, Ward Y, Wang H, Siebenlist U, Murphy PM, Kelly K. Infect Immun. 2007 Mar;75(3):1144-53. Epub 2006 Dec 11.
3. Individual cell-based models of tumor-environment interactions: Multiple effects of CD97 on tumor invasion. Galle J, Sittig D, Hanisch I, Wobus M, Wandel E, Loeffler M, Aust G. Am J Pathol. 2006 Nov;169(5):1802-11.