

11-267-C025

Monoclonal Antibody to CD97 Purified Antibody (0.025 mg)

Clone:	MEM-180
Isotype:	Mouse IgG1
Specificity:	The antibody MEM-180 recognizes a 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. HLDA VI; WS Code BP 415 HLDA VI; WS Code NL N-L023
Regulatory Status:	RUO
Immunogen:	PHA-activated peripheral blood cells
Species Reactivity:	Human
Application:	Flow Cytometry Recommended dilution:5 µg/ml Immunoprecipitation
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified by protein-A affinity chromatography
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD97 is a G-protein-coupled seven-span transmembrane adhesive receptor that is constitutively expressed on granulocytes and monocytes and rapidly upregulated on T and B cells upon activation. CD97 is produced in alternatively spliced forms and its cellular ligand is CD55 (DAF), which protects various cell types from complement-mediated damage. Interaction of CD97 on leukocytes and CD55 on vessel cells probably facilitate leukocyte activation and migration into the tissues, similarly, CD97 seems to play a role in tumour migration and invasiveness. CD97 is involved in T cell regulation and peripheral granulocyte homeostasis.

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Antibodies

References:

- *Visser L, de Vos AF, Hamann J, Melief MJ, van Meurs M, van Lier RA, Laman JD, Hintzen RQ. Expression of the EGF-TM7 receptor CD97 and its ligand CD55 (DAF) in multiple sclerosis. *J Neuroimmunol.* 2002 Nov;132(1-2):156-63.
- *Galle J, Sittig D, Hanisch I, Wobus M, Wandel E, Loeffler M, Aust G: Individual cell-based models of tumor-environment interactions: Multiple effects of CD97 on tumor invasion. *Am J Pathol.* 2006 Nov;169(5):1802-11.
- *Abbott RJ, Spendlove I, Roversi P, Fitzgibbon H, Knott V, Teriete P, McDonnell JM, Handford PA, Lea SM: Structural and functional characterization of a novel T cell receptor co-regulatory protein complex, CD97-CD55. *J Biol Chem.* 2007 Jul 27;282(30):22023-32.
- *Wang T, Tian L, Haino M, Gao JL, Lake R, Ward Y, Wang H, Siebenlist U, Murphy PM, Kelly K: Improved antibacterial host defense and altered peripheral granulocyte homeostasis in mice lacking the adhesion class G protein receptor CD97. *Infect Immun.* 2007 Mar;75(3):1144-53.
- *Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).
- *Wobus M, Vogel B, Schmücking E, Hamann J, Aust G: N-glycosylation of CD97 within the EGF domains is crucial for epitope accessibility in normal and malignant cells as well as CD55 ligand binding. *Int J Cancer.* 2004 Dec 10;112(5):815-22.

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