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CD69 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1374a

Specification

CD69 Antibody - Product Information

Application	**WB, IHC, FC, E**
Primary Accession	Q07108
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**22.5kDa KDa**

Description
Involved in lymphocyte proliferation and functions as a signal transmitting receptor in lymphocytes, natural killer (NK) cells, andplatelets Subcellular location: Membrane, Single-pass type II membrane protein Tissue specificity: Expressed on the surface of activated T-cells, B-cells, natural killer cells, neutrophils, eosinophils, epidermal Langerhanscells and platelets Sequence similarities: Contains 1 C-type lectin domain.

Immunogen
Purified recombinant fragment of human CD69 expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

CD69 Antibody - Additional Information

Gene ID 969

Other Names
Early activation antigen CD69, Activation inducer molecule, AIM, BL-AC/P26, C-type lectin domain family 2 member C, EA1, Early T-cell activation antigen p60, GP32/28, Leukocyte surface antigen Leu-23, MLR-3, CD69, CD69, CLEC2C

Dilution
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
FC~~1/200 - 1/400
E~~N/A

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CD69 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CD69 Antibody - Protein Information

Name CD69

Synonyms CLEC2C

Function
Transmembrane protein expressed mainly on T-cells resident in mucosa that plays an essential role in immune cell homeostasis. Rapidly expressed on the surface of platelets, T-lymphocytes and NK cells upon activation by various stimuli, such as antigen recognition or cytokine signaling, stimulates different signaling pathways in different cell types (PubMed:24752896, PubMed:26296369, PubMed:35930205). Negatively regulates Th17 cell differentiation through its carbohydrate dependent interaction with galectin-1/LGALS1 present on immature dendritic cells (PubMed:24752896). Association of CD69 cytoplasmic tail with the JAK3/STAT5 signaling pathway regulates the transcription of RORgamma/RORC and, consequently, differentiation toward the Th17 lineage (By similarity). Also acts via the S100A8/S100A9 complex present on peripheral blood mononuclear cells to promote the conversion of naive CD4 T-cells into regulatory T-cells (PubMed:26296369). Acts as an oxidized low-density lipoprotein (oxLDL) receptor in CD4 T- lymphocytes and negatively regulates the inflammatory response by inducing the expression of PDCD1 through the activation of NFAT (PubMed:35930205). Participates in adipose tissue-derived mesenchymal stem cells (ASCs)-mediated protection against P.aeruginosa infection. Mechanistically, specifically recognizes P.aeruginosa to promote ERK1 activation, followed by granulocyte-macrophage colony-stimulating factor (GM-CSF) and other inflammatory cytokines secretion (PubMed:34841721). In eosinophils, induces IL-10 production through the ERK1/2 pathway (By similarity). Negatively regulates the chemotactic responses of effector lymphocytes and dendritic cells (DCs) to sphingosine 1 phosphate/S1P by acting as a S1PR1 receptor agonist and facilitating the internalization and degradation of the receptor (PubMed:37039481).

Cellular Location
Cell membrane; Single-pass type II membrane protein

Tissue Location
Expressed on the surface of activated T-cells, B- cells, natural killer cells, neutrophils, eosinophils, epidermal Langerhans cells and platelets

CD69 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CD69 Antibody - Images

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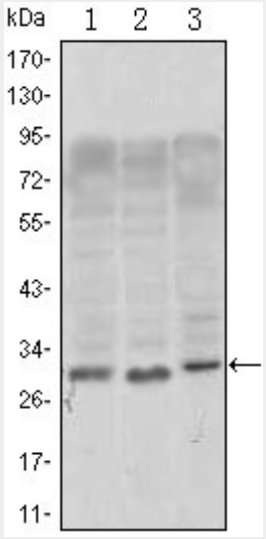

Figure 1: Western blot analysis using CD69 mouse mAb against, Jurkat (1), L1210 (2) and TPH-1 (3) cell lysate.

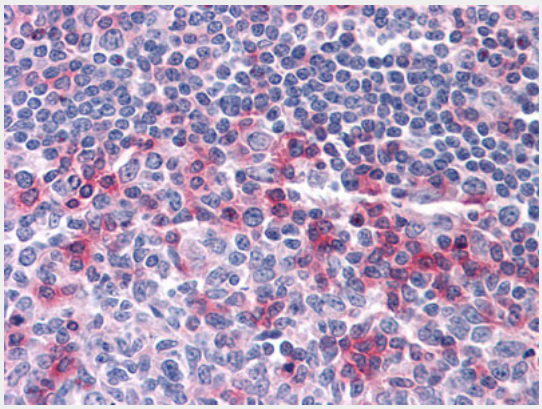

Figure 2: Immunohistochemical analysis of paraffin-embedded human Tonsil tissues using anti-CD69 mouse mAb

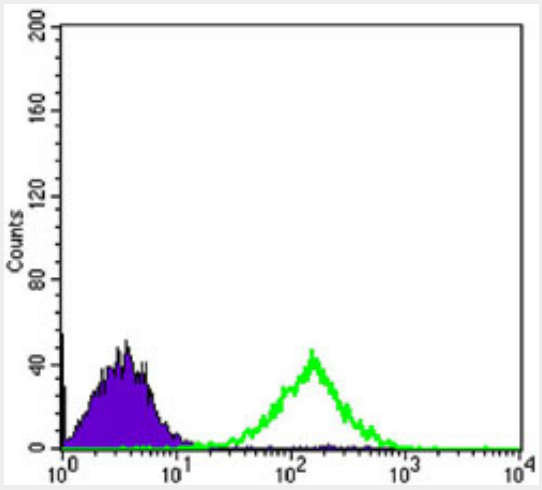

Figure 3: Flow cytometric analysis of Jurkat cells using CD69 mouse mAb (green) and negative control (purple).

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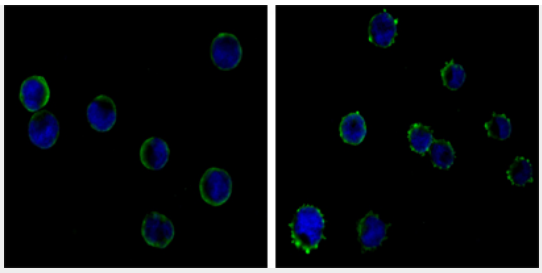

Figure 2: Immunofluorescence analysis of HL-60(left) and K562 (right) cells using CD19 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

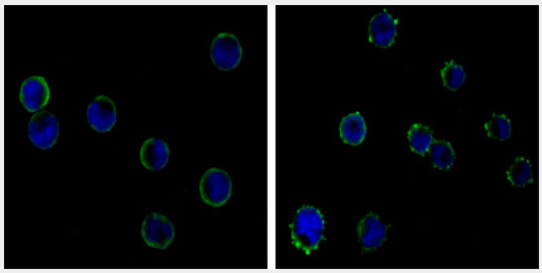

Figure 2:Immunofluorescence analysis of HL-60(left) and K562(right) cells using CD19 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

CD69 Antibody - References

1. EMBO J. 1997 Feb 17;16(4):673-84. 2. Cell Immunol. 2002 Nov;220(1):20-9. 3. Arch Biochem Biophys. 2005 Jun 1;438(1):11-20.