

CD69 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1374a**Specification**

CD69 Antibody - Product Information

Application	WB, IHC, FC, ICC, IF
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, and platelets 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 Langerhans cells 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, CLEC2C

Dilution

WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
FC~~1/200 - 1/400
ICC~~1:200~~1000

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). Acts also 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 Cytometry](#)
- [Cell Culture](#)

CD69 Antibody - Images

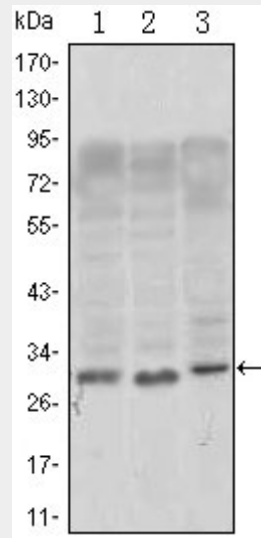


Figure 1: Western blot analysis using CD69 mouse mAb against, Jurkat (1), L1210 (2) and TPH-1 (3) cell lysate.

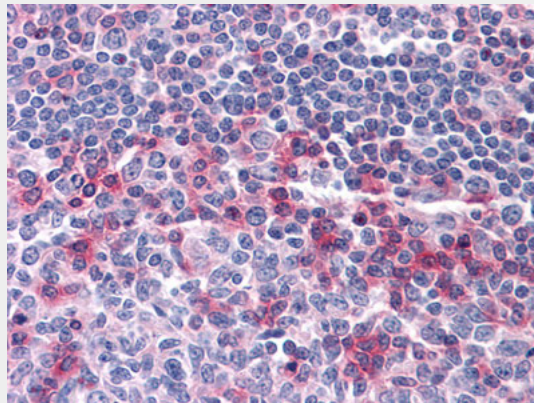


Figure 2: Immunohistochemical analysis of paraffin-embedded human Tonsil tissues using anti-CD69 mouse mAb

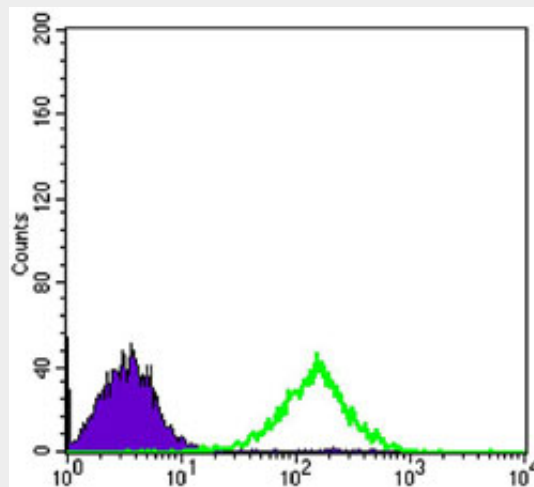


Figure 3: Flow cytometric analysis of Jurkat cells using CD69 mouse mAb (green) and negative control (purple).

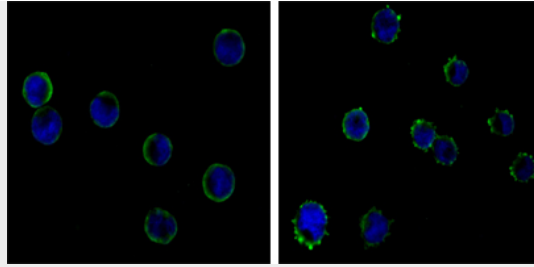


Figure 2: Immunofluorescence analysis of HL-60(left) and K562 (right) cells using CD19 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

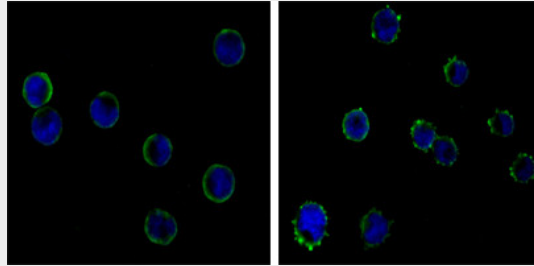


Figure 2:Immunofluorescence analysis of HL-60(left) and K562(right) cells using CD19 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

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.