10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# CD69 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5413c

## Product Information

| | |
|---|---|
| **Application** | WB, FC, E |
| **Primary Accession** | Q07108 |
| **Other Accession** | NP_001772.1 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB26784 |
| **Calculated MW** | 22559 |
| **Antigen Region** | 119-148 |

## 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 |
| **Target/Specificity** | This CD69 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 119-148 amino acids from the Central region of human CD69. |
| **Dilution** | WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | CD69 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

## 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 |

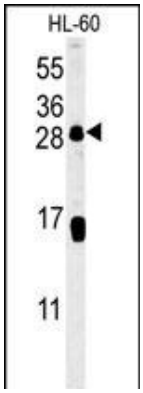
## Background

This gene encodes a member of the calcium dependent lectin superfamily of type II transmembrane receptors. Expression of the encoded protein is induced upon activation of T lymphocytes, and may play a role in proliferation. Furthermore, the protein may act to transmit signals in natural killer cells and platelets. Alternative splicing results in multiple transcript variants.

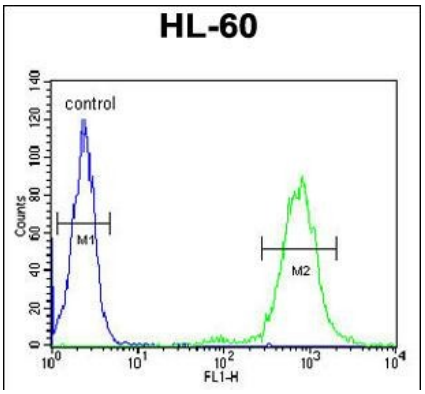
## References


Davila, S., et al. Genes Immun. (2010) In press :
Kolenko, P., et al. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 65 (PT 12), 1258-1260 (2009) :
Hu, M., et al. J. Mol. Recognit. 22(6):516-520(2009)
Radstake, T.R., et al. PLoS ONE 4 (6), E5981 (2009) :
Natarajan, K., et al. Biochemistry 39(48):14779-14786(2000)
Vance, B.A., et al. Arch. Biochem. Biophys. 368(2):214-220(1999)
Lopez-Cabrera, M., et al. J. Biol. Chem. 270(37):21545-21551(1995)
Bezouska, K., et al. Biochem. Biophys. Res. Commun. 208(1):68-74(1995)
Santis, A.G., et al. Eur. J. Immunol. 24(7):1692-1697(1994)
Lopez-Cabrera, M., et al. J. Exp. Med. 178(2):537-547(1993)
Ziegler, S.F., et al. Eur. J. Immunol. 23(7):1643-1648(1993)
Cambiaggi, C., et al. Immunogenetics 36(2):117-120(1992)


## Images




CD69 Antibody (Center)(Cat. #AP5413c) western blot analysis in HL-60 cell line lysates (35ug/lane).This demonstrates the CD69 antibody detected the CD69 protein (arrow).




CD69 Antibody (Center) (Cat. #AP5413c) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.