Data Sheet (Cat.No.TMAZ-0384)

TargetMol

Anti-CD69 Monoclonal Antibody

Product Details

Ig Type:	Rabbit monoclonal IgG
Reactivity:	Human
Conjugation:	Unconjugated
Molecular Weight:	150 kDa
Purification:	Protein A Affinity Purified

Applications

Verified Activity:	Flow cytometry analysis of CD69 overexpressed 454F cells with TMAZ-0384, followed by goat anti-rabbit IgG-ABflo 647 (red line). The isotype control is rabbit IgG (black line).
Application:	ELISA, FCM
Recommended	0.1-0.2 μg/10E6 cells for FCM; 1 ng/μl for ELISA

Properties

Purity:	> 95% as determined by SDS-PAGE.
Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	CD69
Antigen Species:	Human
Gene ID:	969
Uniprot ID:	Q07108
Synonyms:	Leukocyte surface antigen Leu-23;Early T-cell activation antigen p60;C-type lectin domain family 2 member C;MLR-3;BL-AC/P26;GP32/28;Activation inducer molecule;Early activation antigen CD69;EA1
Biology Area:	Immunology Research

Research Background

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)

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