ARG53823
anti-CD3 epsilon (activation epitope) antibody [APA1/1] (PE)

Package: 100 µg
Store at: 4°C

Summary

Product Description	PE-conjugated Mouse Monoclonal antibody [APA1/1] recognizes CD3 epsilon (activation epitope)
Tested Reactivity	Hu, Ms
Tested Application	FACS
Specificity	The clone APA1/1 recognizes an activation-dependent intracellular epitope of CD3 epsilon. Exposure of the epitope precedes CD3 phosphorylation and recruitment and activation of ZAP70, which initiates the signaling cascade produced by T-cell activation. APA1/1 provides the earliest known marker for TCR-mediated T cell activation.
Host	Mouse
Clonality	Monoclonal
Clone	APA1/1
Isotype	IgG1
Target Name	CD3 epsilon (activation epitope)
Species	Human
Immunogen	Purified human CD3 epsilon proteins isolated from thymus.
Conjugation	PE
Alternate Names	CD3E; CD3 Epsilon Subunit Of T-Cell Receptor Complex; T-Cell Surface Glycoprotein CD3 Epsilon Chain; CD3e Antigen, Epsilon Polypeptide (TiT3 Complex); T-Cell Surface Antigen T3/Leu-4 Epsilon Chain; CD3e Molecule, Epsilon (CD3-TCR Complex); CD3-Epsilon; CD3epsilon

Application Instructions

Application table

Application	Dilution
FACS	1 - 4 µg/ml

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

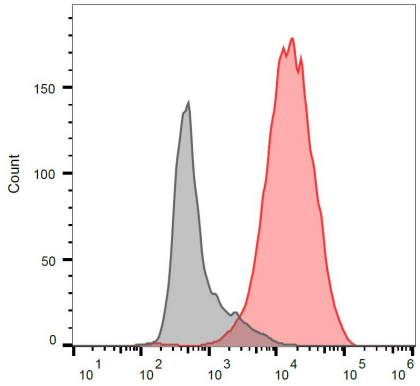
Form	Liquid
Purification Note	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Buffer	PBS, 15 mM Sodium azide and 0.2% (w/v) high-grade protease free BSA
Preservative	15 mM Sodium azide
Stabilizer	0.2% (w/v) high-grade protease free BSA
Concentration	0.1 mg/ml

Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 12500 Mouse GeneID: 915 Human Swiss-port # P04234 Human Swiss-port # P04235 Mouse
Gene Symbol	CD3E
Gene Full Name	CD3 Epsilon Subunit Of T-Cell Receptor Complex
Background	The protein encoded by this gene is the CD3-epsilon polypeptide, which together with CD3-gamma, -delta and -zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T-cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. The epsilon polypeptide plays an essential role in T-cell development. Defects in this gene cause immunodeficiency. This gene has also been linked to a susceptibility to type I diabetes in women.
Function	Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways.
Highlight	Related products: CD3 antibodies; CD3 ELISA Kits; CD3 Duos / Panels; Anti-Mouse IgG secondary antibodies; Related news: New antibody panels and duos for Tumor immune microenvironment Tumor-Infiltrating Lymphocytes (TILs)
Research Area	Cancer antibody; Developmental Biology antibody; Immune System antibody; Lymphocyte Marker antibody; Inflammatory Cell Marker antibody; T-cell Marker antibody; T-cell infiltration Study antibody; Tumor-infiltrating Lymphocyte Study antibody
Calculated Mw	19 kDa
Cellular Localization	Cell membrane, Membrane

Images



ARG53823 anti-CD3 epsilon (activation epitope) antibody [APA1/1] (PE) FACS image

Flow Cytometry: Separation of stained Jurkat cells (red) from unstained Jurkat cells (grey). Cells were stained with ARG53823 anti-CD3 epsilon (activation epitope) antibody [APA1/1] (PE) at 3 µg/ml dilution.