

ARG42316 anti-CD3 epsilon (activation epitope) antibody [APA1/1] (FITC)

Package: 50 µg
Store at: 4°C

Summary

| | |
|---------------------|--|
| Product Description | FITC-conjugated Mouse Monoclonal antibody [APA1/1] recognizes CD3 epsilon (activation epitope) |
| Tested Reactivity | Hu, Ms |
| Tested Application | FACS |
| Specificity | The mouse monoclonal antibody 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 | FITC |
| 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 µg/ml |
| Application Note | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. | |

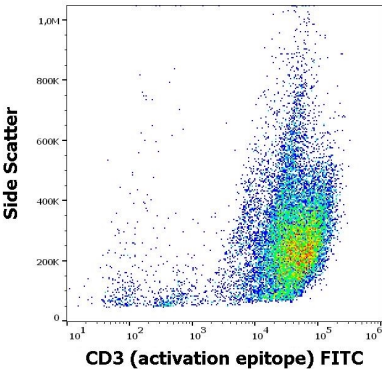
Properties

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|---------------------|--|
| Form | Liquid |
| Purification | Purified |
| Buffer | PBS and 15 mM Sodium azide. |
| Preservative | 15 mM Sodium azide |
| 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. |

Bioinformation

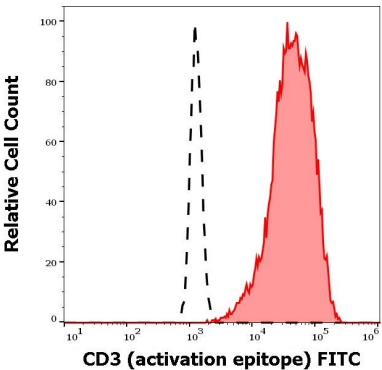
| | |
|-----------------------|--|
| Gene Symbol | CD3E |
| Gene Full Name | CD3 Epsilon Subunit Of T-Cell Receptor Complex |
| Background | The protein encoded by this gene is the CD3-epsilon polypeptide, which together with CD3-gamma, -delta and -zeta, and the T-cell receptor alpha/beta and gamma/delta 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. |
| Calculated Mw | 23 kDa |
| Cellular Localization | Cell membrane, Membrane |

Images



ARG42316 anti-CD3 epsilon (activation epitope) antibody [APA1/1] (FITC) FACS image

Flow Cytometry: Jurkat cell suspension stained with ARG42316 anti-CD3 epsilon (activation epitope) antibody [APA1/1] (FITC) at 5 µg/ml dilution.



ARG42316 anti-CD3 epsilon (activation epitope) antibody [APA1/1] (FITC) FACS image

Flow Cytometry: Separation of Jurkat cells (red-filled) from Human neutrophil granulocytes (black-dashed). Cells were stained with ARG42316 anti-CD3 epsilon (activation epitope) antibody [APA1/1] (FITC) at 5 µg/ml dilution.