

Anti-CD3 epsilon (activation epitope) Purified Monoclonal Antibody

Catalog Number: M02675-4

About CD3E

CD3 complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins super family encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation.

Overview

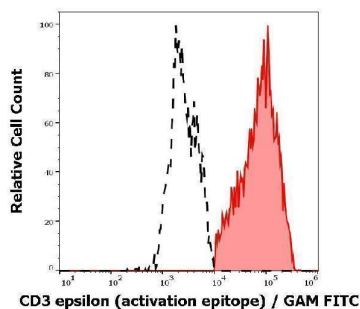
Product Name	Anti-CD3 epsilon (activation epitope) Purified Monoclonal Antibody
Reactive Species	Human, Mouse
Description	Boster Bio Anti-CD3 epsilon (activation epitope) Purified Monoclonal Antibody (Catalog# M02675-4). Tested in Flow Cytometry, IP, WB, IHC-F, ICC application(s). This antibody reacts with Mouse, Human.
Application	Flow Cytometry, IP, IHC-F, ICC, WB
Clonality	Monoclonal APA1/1
Formulation	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Storage Instructions	Store at 2-8°C. Do not freeze.
Host	Mouse
Uniprot ID	P07766

Technical Details

Immunogen	Purified human CD3 proteins isolated from thymus. 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.
Predicted Reactive Species	Primate
Cross Reactivity	This antibody does not cross-react with Thy-1.1 alloantigen.
Isotype	Mouse IgG1
Form	Liquid

Concentration	1 mg/ml
Purification	Purified by protein-A affinity chromatography.
Suggested Dilutions	<p>Flow cytometry: Intracellular staining; recommended dilution: 1-4 µg/ml; positive control: human T cells stimulated with anti-CD3 (MEM-57) antibody (1 ug/ml). Sample preparation: At the end of stimulation of T cells, perform staining of surface markers (if required) in PBS + 0.1% BSA for 20 min. on ice. Wash with PBS and fix with 2% formaldehyde, 30 min on ice. Wash with PBS and incubate in PBS + 0,1% saponine, 5 min. RT. Incubate the cells in PBS + 1% BSA + 0.03% saponine, 15 min. on ice. Incubate with fluorescence-labeled APA1/1 antibody (1-2 ug/ml) in PBS + 1% BSA + 0.03% saponine in dark, 20 min. RT. Wash with PBS + 1% BSA + 0.03% saponine, resuspend in PBS.</p> <p>Immunocytochemistry: Fixed and permeabilised cells. The antibody can distinguish TCR-stimulated from non-stimulated cells.</p>

Anti-CD3 epsilon (activation epitope) Purified Monoclonal Antibody (M02675-4) Images



Separation of Jurkat cells stained anti-human CD3 activation epitope (APA1/1) purified antibody (concentration in sample 5 µg/ml, GAM FITC, red-filled) from Jurkat cells unstained by primary antibody (GAM FITC, black-dashed) in flow cytometry analysis (intracellular staining).

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