



11-599-C100

Monoclonal Antibody to CD3 activation epitope Purified Antibody (0.1 mg)

Clone:	APA1/1
Isotype:	Mouse IgG1
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.
Regulatory Status:	RUO
Immunogen:	Purified human CD3 proteins isolated from thymus
Species Reactivity:	Human, Mouse
Application:	Flow Cytometry Positive control: Human T cells stimulated with anti-CD3 (MEM-57) antibody (1 µg/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 µg/ml) in PBS + 1% BSA + 0.03% saponine in dark, 20 min. RT. Wash with PBS + 1% BSA + 0.03% saponine, resuspend in PBS. Immunoprecipitation Western Blotting Immunohistochemistry (frozen sections) Immunocytochemistry Application note: Fixed and permeabilised cells. The antibody can distinguish TCR-stimulated from non-stimulated cells.
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified by protein-A affinity chromatography
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Expiration:	See vial label
Lot Number:	See vial label

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****Background:**

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.

References:

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- *And other.

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