

30-1420: Anti-CD3 activation epitope Monoclonal Antibody (Clone:APA1/1)

Clonality :	Monoclonal
Clone Name :	APA1/1
Application :	FACS, IP, WB, IHC-Fr, ICC
Reactivity :	Human, Mouse
Gene :	CD3E
Gene ID :	916
Uniprot ID :	P07766
Format :	Purified
Alternative Name :	T-cell surface glycoprotein CD3 epsilon chain, T-cell surface antigen T3/Leu-4 epsilon chain
Isotype :	Mouse IgG1
Immunogen Information :	Purified human CD3 proteins isolated from thymus

Description

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.

Product Info

Amount :	0.1 mg
Purification :	Purified by protein-A affinity chromatography
Storage condition :	Store at 2-8°C. Do not freeze.

Application Note

Flow Cytometry *Positive control:* Human T cells stimulated with anti-CD3 (MEM-57) antibody (1 $\mu\text{g/ml}$)

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 $\mu\text{g/ml}$) 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.