

Product datasheet for **AM12005PU-N**

CD3E (activation epitope) Mouse Monoclonal Antibody [Clone ID: APA1/1]

Product data:

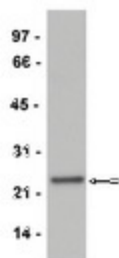
Product Type:	Primary Antibodies
Clone Name:	APA1/1
Applications:	FC, IF, IHC, IP, WB
Recommended Dilution:	Flow Cytometry. Sample preparation: At the end of stimulation of T cells, perform staining of surface markers (if required) in PBS + 0.1% BSA for 20 min. on ice. Wash with PBS and fix with 2% formaldehyde, 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 (1-5 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. Positive control: Human T cells stimulated with anti-CD3 (MEM-57) antibody (1 µg/ml).
	Immunoprecipitation.
	Western blot.
	Immunohistochemistry on frozen sections.
	Immunofluorescence. Application note: Fixed and permeabilised cells. The antibody can distinguish TCR-stimulated from non-stimulated cells.
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified human CD3 proteins isolated from thymus
Specificity:	The antibody 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.



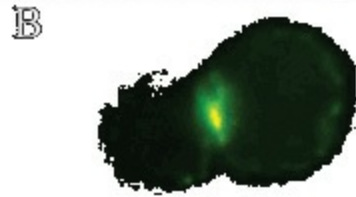
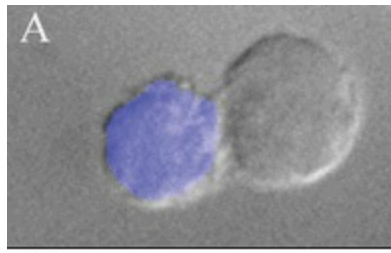
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Formulation:	PBS, pH 7.4 State: Aff - Purified State: Liquid Ig fraction Preservative: 15 mM sodium azide
Concentration:	lot specific
Purification:	Protein A affinity chromatography (> 95% pure by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store at 2 - 8 °C for up to one month or (in aliquots) at -20 °C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD3e molecule
Database Link:	Entrez Gene 12501 Mouse Entrez Gene 916 Human P07766
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.
Synonyms:	T3/Leu-4
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Hematopoietic cell lineage, Primary immunodeficiency, T cell receptor signaling pathway

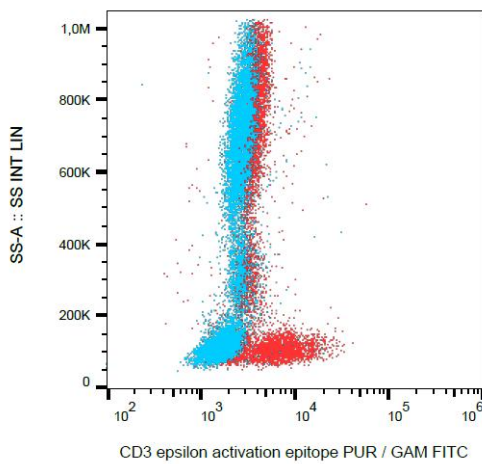
Product images:



Jurkat cell lysate was probed with anti-CD3 epsilon (0.5ug/ml).



T-cell Activation by an Antigen presenting Cell. Panel A is an image of a single Antigen-Presenting Cell (APC; a Raji cell, stained blue with CMAC dye) activated by Staphylococcal enterotoxin E in contact with a single T-cell (a Jurkat cell). Panel B is an image of the two cells, stained with an anti-CD3 ϵ antiserum (a 1:3,000 dilution) and anti-CD3 μ , clone APA1/1 (#; 10ug/ml). Visualization of CD3 ϵ or CD3 μ was with an anti-rabbit Alexa 488 (green) or anti-mouse Alexa 594 (red) conjugate, respectively; the yellow color is produced by co-localization of CD3 ϵ and CD3 μ (clone APA1/1) staining. Data generously provided by Dr. Balbino Alarcon, Centro de Biología Molecular, CSIC, Madrid, Spain.



Intracellular staining of human peripheral blood with anti-CD3 epsilon activation epitope (APA1/1) purified, GAM-FITC.