

CD3e Monoclonal Antibody (CD3-12)

Catalog Number      MA5-16622

Product data sheet

Details		Species Reactivity	
Size	200 µg	Species reactivity	Human, Many, Mouse, Rat
Host/Isotope	Rat / IgG1	Published species	Rhesus monkey
Class	Monoclonal	Tested Applications	
Type	Antibody	Flow Cytometry (Flow)	1:50-1:100
Clone	CD3-12	Immunohistochemistry (Frozen) (IHC (F))	1:100
Immunogen	Synthetic peptide sequence derived from cytoplasmic epitope of CD3 (Glu-Arg-Pro-Pro-Pro-Val-Pro-Asn-Pro-Asp-Tyr-Glu-Pro-Cys)	Immunohistochemistry (Paraffin) (IHC (P))	1:100
		Western Blot (WB)	Assay-dependent
		Immunocytochemistry (ICC/IF)	Assay-dependent
Conjugate	Unconjugated	Published Applications	
Form	Liquid	Immunohistochemistry (Frozen) (IHC (F))	See 1 publications below
Concentration	1 mg/mL	<small>* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.</small>	
Purification	Protein G		
Storage buffer	PBS		
Contains	0.09% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Product specific information

This antibody reacts with CD3 epsilon. Predicted to react with birds and all mammals based on sequence homology. Heat-mediated antigen retrieval using Tris/EDTA (pH 9) is recommended for the staining of paraffin sections. A suggested positive control for immunohistochemical applications is tonsil. Rat anti Human CD3, clone CD3-12 raised against a peptide representing an invariant cytoplasmic sequence within the CD3 epsilon chain recognizes human CD3 epsilon.

Background/Target Information

The CD3 subunit complex which 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 and 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. The CD3 antigen is present on 68-82% of normal peripheral blood lymphocytes, 65-85% of thymocytes and Purkinje cells in the cerebellum. It is never expressed on B or NK cells. Decreased percentages of T lymphocytes may be observed in some autoimmune diseases. The genes encoding the CD3 epsilon, gamma and delta polypeptides are located on chromosome 11. Defects in the CD3 gene are associated with CD3 immunodeficiency.

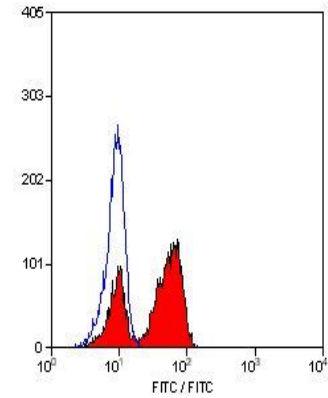
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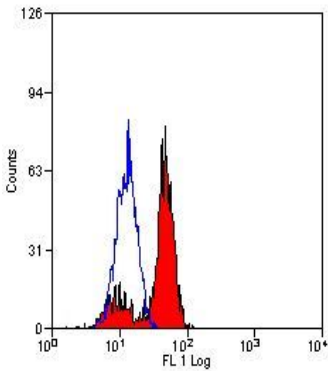
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Product Images For CD3e Monoclonal Antibody (CD3-12)



**CD3e Antibody (MA5-16622) in Flow**  
Flow cytometric analysis of human peripheral blood lymphocytes using a CD3/TCRE monoclonal antibody (Product # MA5-16622)



**CD3e Antibody (MA5-16622) in Flow**  
Flow cytometric analysis of human peripheral blood lymphocytes using a CD3/TCRE monoclonal antibody (Product # MA5-16622)

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PubMed References For CD3e Monoclonal Antibody (CD3-12)

1 Immunohistochemistry (Frozen) References

Species / Dilution	Summary
Rhesus monkey / Not Cited	MA516622 was used in immunohistochemistry - frozen section to study CXCR5+ CD8 T cells in SIV-infected animals
	Proceedings of the National Academy of Sciences of the United States of America ( 2017; 114: 1976)
	<b>"Dynamics of SIV-specific CXCR5+ CD8 T cells during chronic SIV infection."</b> Author(s):Mylvaganam GH,Rios D,Abdelaal HM,Iyer S,Tharp G,Mavigner M,Hicks S,Chahroudi A,Ahmed R,Bosinger SE, Williams IR,Skinner PJ,Velu V,Amara RR PubMed Article URL: <a href="http://dx.doi.org/10.1073/pnas.1621418114">http://dx.doi.org/10.1073/pnas.1621418114</a>

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