

CD3

Mouse Anti-Human CD3 (Clone CLB-T3/4.E, 1XE) mAb

Catalog No.	M1654A M1654B	Quantity:	1.0 mg 5.0 mg
Alternate Names:	T3 antigen, T-cell surface glycoprotein CD3		
Description:	The monoclonal antibody is intended to be used to induce the proliferation of resting T lymphocytes. In general, two signals are required to activate T lymphocytes into proliferation. <i>In vitro</i> , both signals can be given by the proper combination of monoclonal antibodies. The CD3 molecule (alpha, beta, gamma and zeta chains) exists in a complex with the T cell receptor (TCR). By binding CD3 this antibody mimics the signal through the TCR:the "first signal." The binding of anti-CD28 mAbs to T cells was found to enhance stimulation of the cells by anti-CD3 mAbs. Therefore, CD28 is regarded as a co-stimulatory molecule, providing the "second signal."		
Concentration:	~1.0 mg/ml, lot specific		
Source:	Culture supernatant		
Isotype:	Mouse IgE		
Specificity:	Recognizes human CD3 antigen (T3-antigen), which is expressed on human T lymphocytes. It reacts with 80-90% human peripheral T lymphocytes and medullary thymocytes. Does not react with B cells, monocytes, granulocytes and platelets.		
Immunogen:	Human T lymphocytes		
Clone:	CLB-T3/4.E, 1XE This clone is a switch variant from the original clone 1X1.		
Hybridoma:	Hybridization of SP2/0 cells with spleen cells of a (BALB/c x A/J) mouse.		
Formulation:	Culture supernatant is concentrated to an antibody level comparable to ascites fluid. Sterile-filtered, with no preservatives.		
Biological Activity:	<i>In vitro</i> T cell stimulation.		
Applications:	Functional studies		
Application Notes:	To induce the proliferation of resting T lymphocytes for further study. In general, two signals are required to activate T lymphocytes into proliferation. <i>In vitro</i> , both signals can be given by the proper combination of monoclonal antibodies, in this respect, monoclonal antibodies against CD2, CD3 and CD28 have provided much information on the stimulatory mechanism. It was found that anti-CD2 antibodies are also able to stimulate T cells, although only in the presence of a second signal, which can be given either by more anti-CD2 antibodies directed against other epitopes on the CD2 molecule, and / or e.g. by an anti-CD28 antibody. The binding of anti-CD28 McAbs to T cells was found to enhance stimulation of the cells by anti-CD2 and anti-CD3 McAbs. Therefore, CD28 is regarded as a 'co-stimulatory' molecule.		
Storage & Stability:	Store in working aliquots at -20°C to -80°C for up to one year. Avoid repeated freeze-thaw cycles.		

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

