

PeliCluster

CD3

Art.no	M1655
Clone	CLB-T3/2, 16A9 This clone has been derived from hybridization of SP2/O cells with spleen cells of a (BALB/c x A/J) mouse immunized with human T lymphocytes. This antibody meets the specification for CD3 of the International Workshop on Human Leukocyte Differentiation Antigens.
Isotype	Mouse IgG2a
Source	Ascites fluid of tumour bearing BALB/c mice.
Packing	Each vial contains 0.1 ml purified ascites, 0.22 μ m filtered, with a concentration of 2 mg/ml in 20 mM TRIS and 150 mM NaCl, pH 8.0.
Preservative	Merthiolate 0.001 %.
Storage and stability	Monoclonal antibodies should be stored at -18 to -32°C. The reagent is stable until the expiry date stated on the vial label.
Major reactivity	The monoclonal antibody is directed against the CD3 antigen (T3 antigen), which is expressed on human T lymphocytes. The monoclonal antibody reacts with 80 - 90% human peripheral T lymphocytes and medullary thymocytes. The monoclonal antibody does not react with B cells, monocytes, granulocytes and platelets.
Molecular mass	50 kD.
Application¹⁻⁵	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. These antibodies are available in the PeliCluster™ range.

Order information	<table border="1"><thead><tr><th>Item</th><th>Order number</th><th>Isotype</th><th>Clone name</th><th>Application</th></tr></thead><tbody><tr><td>CD2</td><td>M1651</td><td>IgG1</td><td>CLB-T11.1/1, 6G4</td><td>T cell stimulation</td></tr><tr><td>CD2</td><td>M1652</td><td>IgG1</td><td>CLB-T11.2/1, 4B2</td><td>T cell stimulation</td></tr><tr><td>CD2</td><td>M1653</td><td>IgG1</td><td>CLB-HIK27</td><td>T cell stimulation</td></tr><tr><td>CD3</td><td>M1654</td><td>IgE</td><td>CLB-T3/4E, 1XE</td><td>T cell stimulation</td></tr><tr><td>CD3</td><td>M1655</td><td>IgG2a</td><td>CLB-T3/2, 16A9</td><td>T cell stimulation</td></tr><tr><td>CD28</td><td>M1650</td><td>IgG1</td><td>CLB-CD28/1, 15E8</td><td>T cell co-stimulation</td></tr></tbody></table>	Item	Order number	Isotype	Clone name	Application	CD2	M1651	IgG1	CLB-T11.1/1, 6G4	T cell stimulation	CD2	M1652	IgG1	CLB-T11.2/1, 4B2	T cell stimulation	CD2	M1653	IgG1	CLB-HIK27	T cell stimulation	CD3	M1654	IgE	CLB-T3/4E, 1XE	T cell stimulation	CD3	M1655	IgG2a	CLB-T3/2, 16A9	T cell stimulation	CD28	M1650	IgG1	CLB-CD28/1, 15E8	T cell co-stimulation
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- References**
- 1 R.A.W. van Lier et al: 'Immobilized anti-CD3 monoclonal antibodies induce accessory cell- independent lymphokine production, proliferation and helper activity in human T lymphocytes', *Immunology*, **68**, 45, (1989).
 - 2 R.A.W. van Lier et al: 'Functional studies with anti-CD3 heavy chain switch variant monoclonal antibodies', *J.Immunol.* **139**, 2873, (1987).
 - 3 E. Bloemen et al: 'Whole-blood lymphocyte cultures'. *J.Imm.Methods* **122**, 161-167, (1989).
 - 4 M.Th.L. Roos et al: 'T cell function in vitro is an independent progression marker for AIDS in HIV-infected asymptomatic subjects', *J.Inf.Dis.*, **171**, 531, (1995).
 - 5 R. De Jong et al: 'Regulation of T cell differentiation by CD2 and CD28 accessory molecule', *Immunology*, **74**, 175, (1991).