PeliCluster CD3

Art.no M1654

Clone CLB-T3/4.E, 1XE
This clone is a switch variant from the orginal clone 1X1, which has been derived from hybridisation of SP2/0 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 IgE

Source Culture supernatant. The supernatant has been concentrated to an antibody activity compatible to that of the previously used ascites fluid.

Packing Each vial contains 0.1 ml concentrated culture supernatant, 0.22 μm filtered, with a concentration of approximately 1.5 mg/ml.

Preservative None.

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. It reacts with 80-90% human peripheral T lymphocytes and medullary thymocytes. Does not react with B cells, monocytes, granulocytes and platelets.

Molecular mass 20, 25, 28 kD.

Application[1-5] To induce the proliferation of resting T lymphocytes for further study.
In general, two signals are required to activate T lymphocytes into proliferation. *In vitro*, 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

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

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).