BP-50628

Anti-Human CD3 / CD3 Bispecific Antibodies

The OKT3 antibody binds to CD3 epsilon of the T cell receptor-CD3 complex found only on mature T cells and medullary thymocytes. An interaction between T cells, OKT3, and monocytes causes T-cell activation (mitogenesis) in vitro. On the other hand, the OKT3 antibody blocks the unique association between the antigen receptor and CD3, and both the generation and function of cytotoxic T cells. After an initial dose of the OKT3 antibody, T cells disappear from the circulation within minutes to hours. During treatment with the OKT3 antibody, T cells bearing the usual array of surface molecules (CD2, CD4, and CD8) reappear in the peripheral blood circulation but these cells are devoid of CD3. After another 48 hours without the OKT3 antibody, the normal array of surface molecules including CD3 appear again on all T cells. The selective removal of CD3 by internalization is thought to be the key mechanism of action of the OKT3 antibody. Comodulation of the antigen receptor with CD3 explains the immunoblocking action of the OKT3 antibody in vivo. The OKT3 antibody is ineffective clinically if the CD3 target molecule is not modulated. The OKT3 antibody is effective for induction of immunosuppression and for treating initial and steroid-resistant rejections.

The anti-human CD3 antibody (clone: SP34-2), a derivative of SP34, is known to cross-react with a major subset of peripheral blood lymphocytes in both human and non-human primates, including baboon, rhesus, cynomolgus, and pigtail macaque monkeys. The SP34-2 antibody specifically recognizes a major subset of CD3-positive cells from non-human primates, similar to its human counterpart, but does not react with monocytes or granulocytes. The SP34-2 antibody is used in flow cytometry to identify and analyze CD3-positive cells in human and various non-human primate species. It can also be used to stimulate cell proliferation in various primate peripheral blood mononuclear cells (PBMC).

Our recombinant anti-human OKT3 / SP34-2 bispecific antibodies have a part (variable regions) or complete amino acid sequences of the mouse anti-human CD3 antibody (hybridoma clone name or number: OKT3 and SP34-2). It is under investigation whether either of the recombinant anti-human CD3 / CD3 bispecific antibodies (OKT3 / SP34-2 and SP34-2 / OKT3) is the best anti-human CD3 antibody.

Product Details	
Species Reactivity	Human
Source	Mammalian Cells
Isotype	mouse IgG1, lambda.
Class	Anti-Human Bispecific antibodies
Type	Recombinant Humanized
Clone	OKT3 / SP34-2
Target	Anti-human CD3 / CD3
Purity	>95%
Molecular Weight	NA
CAS Number	NA
Formulation	NA
Storage conditions	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 3 months from date of receipt, 2 to 8°C as supplied. 12 months from date of receipt, -20°C to -70°C as supplied.