PA007751.h1Fs-b: Biotinylated Recombinant Anti-human CD3e Monoclonal Antibody (Clone: SP34-2), Human IgG1 Fc Silent Kappa

Catalog No.: PA007751.h1Fs-b | **Product Name:** Biotinylated Recombinant Anti-human CD3E Monoclonal Antibody, Human IgG1 Fc Silent Kappa (Clone: SP34-2)

Biotinylated recombinant anti-human CD3E monoclonal antibody (Clone SP34-2), engineered with a Human IgG1 Fc-silent domain to eliminate non-specific Fc receptor binding during flow cytometric analysis. Features site-directed biotinylation via a C-terminal Avi tag on the heavy chain, with variable regions derived from anti-human CD3 clone (SP34-2) and expressed in mammalian cells.

PRODUCT SPECIFICATIONS

Catalog No.	PA007751.h1Fs-b
Product Name	Biotinylated Recombinant Anti-human CD3E Monoclonal Antibody (Clone: SP34-2), Human IgG1 Fc Silent Kappa
Supplier Name	Syd Labs, Inc.
Brand Name	Syd Labs
Clone	SP34-2.
Isotype	Human IgG1 Fc Silent Kappa.
Source/Host	The site-directed biotinylated anti-human CD3E monoclonal antibody (clone: SP34-2) was produced in mammalian cells.
Specificity/Sensitivity	The site-directed biotinylated recombinant SP34-2 antibody specifically binds to the human, cynomolgus and rhesus T cell receptor CD3 epsilon subunit in denatured form and in native form.
Applications	Flow cytometry (FC) with various dye conjugation through streptavidin; conjugation to streptavidin agarose beads or streptavidin magnetic beads.
Form Of Antibody	0.2 uM filtered solution, pH 7.4, no stabilizers or preservatives.
Conjugate	Biotin-conjugated.
Purity	>95% by SDS-PAGE under reducing conditions.
Shipping & Storage	The SP34-2 antibody is shipped with ice pack. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70°C as supplied. 1 month from date of receipt, 2 to 8°C as supplied.

BACKGROUND & APPLICATION INFORMATION

Recombinant human IgG1 monoclonal antibody with site-directed biotinylation through the Avi tag at the C-terminus of the antibody heavy chain.

The 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, SP34-2, and monocytes causes T-cell activation (mitogenesis) in vitro. On the other hand, the 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 antibody, T cells disappear from the circulation within minutes to hours. During treatment with the 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 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 antibody. Comodulation of the antigen receptor with CD3 explains the immunoblocking action of the antibody in vivo. The antibody is ineffective clinically if the CD3 target molecule is not modulated.

The antibody is effective for induction of immunosuppression and for treating initial and steroid-resistant rejections.