PA007421.h1Fs: Non-conjugated Recombinant Anti-human CD3 Monoclonal Antibody (Clone: SP34-2) for Flow Cytometry, Human IgG1 Fc Silent Kappa, In vivo Grade

Catalog No.: PA007421.h1Fs | **Product Name:** Recombinant Anti-human CD3 Monoclonal Antibody (Clone: SP34-2), Human IgG1 Fc Silent Kappa

Recombinant mouse IgG1 isotype controls and Recombinant human IgG1 isotype controls are available. Condition of sample preparation and optimal sample dilution should be determined experimentally by the investigator.

PRODUCT SPECIFICATIONS

Catalog No.	PA007421.h1Fs
Product Name	Recombinant Anti-human CD3 Monoclonal Antibody (Clone: SP34-2), Human IgG1 Fc Silent Kappa
Supplier Name	Syd Labs, Inc.
Brand Name	Syd Labs
Synonyms	cluster of differentiation 3, CD3D, CD3E, CD3G
Clone	SP34-2.
Isotype	Human IgG1 Fc Silent Kappa
Source/Host	The anti-human CD3 monoclonal antibody (clone: SP34-2) for Flow Cytometry was produced in mammalian cells.
Specificity/Sensitivity	The recombinant SP34-2 antibody for Flow Cytometry specifically binds to the human T cell receptor CD3.
Applications	Flow cytometry (FC), and Immunohistochemistry - Frozen (IHC-F).
Form Of Antibody	0.2 uM filtered solution, pH 7.4, containing 0.09% sodium azide.
Endotoxin	Less than 1 EU/mg of protein as determined by LAL method.
Purity	>95% by SDS-PAGE under reducing conditions.
Shipping & Storage	The Recombinant Anti-human CD3 Monoclonal Antibody (Clone: SP34-2) for Flow Cytometry, Human IgG1 Fc Silent Kappa 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, 2 to 8°C as supplied. Do not freeze it.

REFERENCES & BACKGROUND

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. Engineered with a Human IgG1 Fc-silent domain, this variant eliminates non-specific Fc receptor engagement during assays.