

## PE/XFD610 Anti-human CD3 Antibody \*HIT3a\*

Catalog Number: 10030100,  
10030101, 10030102  
Unit Size: 25 tests, 100 tests, 500 tests

### Product Details

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Storage Conditions	2-8°C with minimized light exposure. Do not freeze.
Expiration Date	12 months upon receiving
Concentration	Lot specific (please consult certificate of analysis for given lot)
Formulation	Phosphate-buffered saline (PBS, pH 7.2), 0.09% sodium azide, 0.2% (w/v) BSA

### Antibody Properties

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Species Reactivity	Human
Class	Primary
Clonality	Monoclonal
Host	Mouse
Isotype	Mouse IgG2a
Immunogen	CD3e (T3E)
Clone	HIT3a
Conjugate	PE/AF610

### Biological Properties

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Preparation	Antibody purified by affinity chromatography and then conjugated with PE/AF610 under optimal conditions
Application	Flow Cytometry (FACS)
Recommended Dilutions	For flow cytometry applications, the suggested concentration is at 5 uL/million cells in 100 uL staining buffer. For the best performance of each application, the optimal concentration of this reagent needs to be carefully determined.
	<i>*The suggested working dilution is provided as a guide only. It is recommended that the users titrates the product for use in their tests using proper positive and negative controls.</i>

### Spectral Properties

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Conjugate	PE/AF610
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Excitation Wavelength 565 nm

Emission Wavelength 627 nm

## Applications

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HIT3a is an anti-human monoclonal antibody that recognizes the CD3e antigen. CD3e (sometimes referred to as T cell antigen receptor complex or T3E) is a 20 kD member of the Ig superfamily that is found on the surface of cells like T cells. CD3 acts in essential cellular pathways, namely, the G protein-coupled receptor signaling pathway, apoptotic signaling pathway and T cell receptor signaling pathway. In addition, in certain organisms, it positively regulates T cell anergy, acts to positively regulate cell-matrix adhesion and is involved in the positive regulation of calcium-mediated signaling. From a research standpoint, it is of biological interest due to its association with essential macromolecules/ligands such as TCR. CD3 is a very popular antibody target, with over 80000 publications in the last decade. CD3e is typically used in flow cytometry applications as a phenotypic marker for differentiation of cell types, especially in the study of immunology. This antibody was purified through affinity chromatography and conjugated to PE/XFD610 (ex/em = 567/627 nm). XFD610 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 610 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 561 nm laser and 615/20 nm bandpass filter (for example, as in the Miltenyi Biotec MACSQuant VYB).