

## PE/XFD610 Anti-human CD44 Antibody \*HI44a\*

Catalog Number: 10440100,  
10440101, 10440102  
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	CD44 (ECMR-III, Pgp-1, HUTCH-1, H-CAM)
Clone	HI44a
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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The HI44a monoclonal antibody reacts with human CD44, a 85 kD transmembrane glycoprotein commonly expressed on the surface of leukocytes, endothelial cells, lymphohematopoietic cells, epithelial cells and hepatocytes. In many organisms, CD44 acts to positively regulate peptidyl-tyrosine phosphorylation, enhances peptidyl-serine phosphorylation and is a positive regulator of ERK1 and ERK2 cascade. Also, it acts in critical cellular pathways, namely, the interferon-gamma-mediated signaling pathway and negative regulation of intrinsic apoptotic signaling pathway in response to DNA damage by p53 class mediator. From a research standpoint, it is of biological interest due to its association with key macromolecules/ligands such as Matrix metalloproteinases (MMPs), Collagen, Osteopontin and Hyaluronan. CD44 is a very popular antibody target, with over 40000 publications in the last decade. CD44 has been widely used in immunology research, typically serving as a phenotypic marker for differentiating cell types in flow cytometric applications. 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 610/20 nm bandpass filter (for example, as in the BD LSRLFortessa™ X-20).