

## XFD700 Anti-human CD44 Antibody \*HI44a\*

Catalog Number: 104401A0, 104401A1

Unit Size: 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	AF700

### Biological Properties

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Appearance	Dark blue liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF700 under optimal conditions
Application	Flow Cytometry (FACS), Fluorescence Imaging
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 AF700

Excitation Wavelength 696 nm

Emission Wavelength 719 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 XFD700 (ex/em = 696/719 nm). XFD700 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 700 (Alexa Fluor® is the trademark of Thermo Fisher).