

**XFD555 Anti-human CD44 Antibody \*HERMES-1\***

Catalog Number: 10443160, 10443161

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	Rat
Isotype	Rat igg2a, $\kappa$
Immunogen	CD44 (ECMR-III, Pgp-1, HUTCH-1, H-CAM)
Clone	HERMES-1
Conjugate	AF555

**Biological Properties**

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Appearance	Red liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF555 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	AF555
Excitation Wavelength	553 nm
Emission Wavelength	568 nm

## Applications

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HERMES-1 is an anti-human monoclonal antibody that forms an immune complex with the CD44 antigen. CD44 (sometimes called Hermes, H-CAM, ECMR III or PGP-1) is a 85 kD transmembrane glycoprotein that is expressed on the surface of cells like erythrocytes, NK cells and epithelial cells. In many organisms, CD44 is involved in the negative regulation of apoptotic process, upregulates peptidyl-serine phosphorylation and is a positive regulator of ERK1 and ERK2 cascade. Additionally, it plays a role in vital cellular pathways, for example, the negative regulation of intrinsic apoptotic signaling pathway in response to DNA damage by p53 class mediator and interferon-gamma-mediated signaling pathway. From a research standpoint, it is of biological interest due to its association with important macromolecules/ligands such as Hyaluronan. CD44 is a very popular antibody target, with over 45000 publications in the last decade. CD44 is frequently used in flow cytometry applications as a phenotypic marker for differentiation of cell types, especially in the study of cell biology, immunology and cell adhesion. This antibody was purified through affinity chromatography and conjugated to XFD555 (ex/em = 553/568 nm). XFD555 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 555 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 561 nm laser and 582/15 nm bandpass filter (for example, as in the BD FACSAria™ Fusion).