

XFD488 Anti-human CD45 Antibody *UCHL1*

Catalog Number: 10456150, 10456151

Unit Size: 100 tests, 500 tests

Product Details

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

Species Reactivity	Human
Class	Primary
Clonality	Monoclonal
Host	Mouse
Isotype	Mouse IgG2a, κ
Immunogen	CD45ro (CD45RO)
Clone	UCHL1
Conjugate	AF488

Biological Properties

Appearance	Orange liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF488 under optimal conditions
Application	Flow Cytometry (FACS), Fluorescence Imaging
Recommended Dilutions	For flow cytometry applications, the suggested concentration is at 5 μ L/million cells in 100 μ L 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

Conjugate	AF488
Excitation Wavelength	499 nm
Emission Wavelength	520 nm

Applications

UCHL1 is an anti-human monoclonal antibody that forms an immune complex with the CD45ro antigen. CD45ro (sometimes called CD45RO) is a 180 kD transmembrane glycoprotein that is found on the surface of cells like granulocytes, macrophages and NK cells. In certain organisms, CD45 plays a role in the upregulation of protein kinase activity, is a positive regulator of tumor necrosis factor production and is a negative regulator of protein kinase activity. Additionally, it has been associated with key biological processes like dephosphorylation, particularly protein dephosphorylation. CD45 acts in key cellular pathways, for example, the regulation of receptor signaling pathway via JAK-STAT, B cell receptor signaling pathway and positive regulation of extrinsic apoptotic signaling pathway. From a research standpoint, it is of biological interest due to its association with important macromolecules/ligands like Src kinases, p56lck and p59fyn. CD45 is a very popular antibody target, with over 54000 publications in the last decade. CD45ro is often used in flow cytometry applications as a phenotypic marker for differentiation of cell types, specifically in the study of inhibitory molecules and immunology. This antibody was purified through affinity chromatography and conjugated to XFD488 (ex/em = 499/520 nm). XFD488 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 488 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 488 nm laser and 525/50 nm bandpass filter (for example, as in the Miltenyi Biotec MACSQuant X).