

**XFD647 Anti-human CD45 Antibody \*HI185\***

Catalog Number: 10453180, 10453181

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 IgG1
Immunogen	CD45 (Leukocyte Common Antigen (LCA), T200, PTPRC)
Clone	HI185
Conjugate	AF647

**Biological Properties**

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Appearance	Dark blue liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF647 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	AF647
Excitation Wavelength	650 nm
Emission Wavelength	671 nm

## Applications

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The HI185 monoclonal antibody reacts with human CD45, a 180 - 240 kD transmembrane glycoprotein often found on the surface of neutrophils, hematopoietic cells, B cells and dendritic cells. CD45 is a component of vital cellular pathways, for example, the T cell receptor signaling pathway, negative regulation of cytokine-mediated signaling pathway and positive regulation of extrinsic apoptotic signaling pathway. Also, in many organisms, it enhances hematopoietic stem cell migration, is a suppressor of cytokine-mediated signaling pathway and enhances protein tyrosine phosphatase activity. CD45 has been thought to be involved with vital biological processes such as dephosphorylation, especially protein dephosphorylation, and is associated with a variety of biologically interesting macromolecules/ligands, for example, p59fyn and Src kinases. CD45 is a very popular antibody target, with over 50000 publications in the last decade. CD45 is frequently used in flow cytometry applications as a phenotypic marker for differentiation of cell types, especially in the study of neuroscience. This antibody was purified through affinity chromatography and conjugated to XFD647 (ex/em = 650/671 nm). XFD647 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 647 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 642 nm laser and 702/85 nm bandpass filter (for example, as in the Luminex Amnis ImageStream).