

XFD647 Anti-human CD45 Antibody *HI73*

Catalog Number: 10451180, 10451181

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
Immunogen	CD45 (Leukocyte Common Antigen (LCA), T200, PTPRC)
Clone	HI73
Conjugate	AF647

Biological Properties

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

Conjugate	AF647
Excitation Wavelength	650 nm
Emission Wavelength	671 nm

Applications

HI73 is an anti-human monoclonal antibody that recognizes the CD45 antigen. CD45 (also known as PTPRC, Leukocyte common antigen or T200) is a 180 - 240 kD transmembrane glycoprotein that is found on the surface of cells like stem cells, dendritic cells and B cells. CD45 has been associated with important biological processes such as dephosphorylation, especially protein dephosphorylation. Additionally, in certain organisms, it positively regulates tumor necrosis factor production, promotes stem cell proliferation and promotes isotype switching to IgG isotypes. CD45 is involved with key cellular pathways, for example, the B cell receptor signaling pathway, T cell receptor signaling pathway and negative regulation of cytokine-mediated signaling pathway. From a research standpoint, it is of biological interest due to its association with critical macromolecules/ligands such as p56lck, Src kinases and p59fyn. CD45 is a very popular antibody target, with over 50000 publications in the last decade. CD45 has a variety of applications in cell biology and inhibitory molecules 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 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 664/20 nm bandpass filter (for example, as in the Luminex Guava easyCyte).