

XFD750 Anti-human CD45 Antibody *HI100*

Catalog Number: 104551A0, 104551A1

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 IgG2b, κ |
| Immunogen | CD45ra (PTPRC) |
| Clone | HI100 |
| Conjugate | AF750 |

Biological Properties

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| Appearance | Dark blue liquid |
| Preparation | Antibody purified by affinity chromatography and then conjugated with AF750 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

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| Conjugate | AF750 |
| Excitation Wavelength | 752 nm |
| Emission Wavelength | 776 nm |

Applications

HI100 is an anti-human monoclonal antibody that recognizes the CD45ra antigen. CD45ra (sometimes referred to as LY5, PTPRC, GP180 or LCA) is a 205 - 220 kD glycoprotein that is located on the surface of cells such as T cells and B cells. CD45 has been thought to be involved with essential biological processes like dephosphorylation, particularly protein dephosphorylation. Additionally, in certain organisms, it represses microglial cell activation, is involved in the positive regulation of humoral immune response mediated by circulating immunoglobulin and plays a role in the upregulation of extrinsic apoptotic signaling pathway. CD45 is a member of important cellular pathways, in particular, the cell surface receptor signaling pathway, positive regulation of antigen receptor-mediated signaling pathway and T cell receptor signaling pathway. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands such as Src kinases. CD45 is a very popular antibody target, with over 54000 publications in the last decade. CD45ra is often used in flow cytometry applications as a phenotypic marker for differentiation of cell types, especially in the study of neuroscience, inhibitory molecules and immunology. This antibody was purified through affinity chromatography and conjugated to XFD750 (ex/em = 752/776 nm). XFD750 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 750 (Alexa Fluor® is the trademark of Thermo Fisher).