iFluor™ 594 Anti-human CD45 Antibody *2D1*

Catalog number: 104540C0, 104540C1
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	0.1 mg/mL
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 IgG1, κ
Immunogen	CD45 (Leukocyte Common Antigen (LCA), T200, PTPRC)
Clone	2D1
Conjugate	iFluor™ 594

Biological Properties

Appearance	Purple liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with iFluor™ 594 under optimal conditions
Application	Flow Cytometry (FACS), Fluorescence Imaging

Spectral Properties

Conjugate	iFluor™ 594
Excitation Wavelength	588 nm
Emission Wavelength	604 nm

Applications

2D1 is an anti-human monoclonal antibody that recognizes the CD45 antigen. CD45 (also known as T200) is a 180 - 240 kD transmembrane protein that is found on the surface of cells like macrophages. CD45 has been closely linked to critical biological processes such as dephosphorylation, specifically protein dephosphorylation. Furthermore, it acts in critical cellular pathways, in particular, the positive regulation

of antigen receptor-mediated signaling pathway, negative regulation of cytokine-mediated signaling pathway and regulation of receptor signaling pathway via JAK-STAT. In certain organisms, CD45 is a repressor of ERK1 and ERK2 cascade, suppresses T cell mediated cytotoxicity and downregulates protein kinase activity. From a research standpoint, it is of biological interest due to its association with important macromolecules/ligands such as Src kinases. CD45 is a very popular antibody target, with over 50000 publications in the last decade. CD45 is often used in flow cytometry applications as a phenotypic marker for differentiation of cell types, specifically in the study of cell biology. This antibody was purified through affinity chromatography and conjugated to iFluor™ 594 (ex/em = 588/604 nm). It is compatible with the 592 nm laser and 610/30 nm bandpass filter (for example, as in the Luminex Amnis ImageStream).