

**XFD680 Anti-mouse CD19 Antibody *1D3,
XFD680 Same Structure to Alexa Fluor™
680***Catalog number: 10194180, 10194181
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	Mouse
Class	Primary
Clonality	Monoclonal
Host	Rat
Isotype	Rat IgG2a, κ
Immunogen	CD19 (B4)
Clone	1D3
Conjugate	AF680

Biological Properties

Appearance	liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF680 under optimal conditions
Application	Flow Cytometry (FACS), Fluorescence Imaging

Spectral Properties

Conjugate	AF680
Excitation Wavelength	681 nm
Emission Wavelength	704 nm

Applications

1D3 is an anti-mouse monoclonal antibody that is specific for the CD19 antigen. CD19 (sometimes referred to as B4) is a 95 kD transmembrane glycoprotein that is expressed on the surface of cells like B cells and stem cells. CD19 plays a role in essential cellular pathways, namely, the

antigen receptor-mediated signaling pathway and B cell receptor signaling pathway. In addition, in some organisms, it is an enhancer of release of sequestered calcium ion into cytosol, is a promoter of protein kinase B signaling and is a positive regulator of phosphatidylinositol 3-kinase activity. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands like CD225, CD81, PI3-kinase and fyn. CD19 is a very popular antibody target, with over 36000 publications in the last decade. CD19 has been widely used in costimulatory molecules and immunology research, commonly serving as a phenotypic marker for differentiating cell types in flow cytometric applications. This antibody was purified through affinity chromatography and conjugated to XFD680 (ex/em = 681/704 nm). XFD680 is manufactured by AAT Bioquest, and it has the same chemical structure of Alexa Fluor® 680 (Alexa Fluor® is the trademark of ThermoFisher). It is compatible with the 642 nm laser and 702/87 nm bandpass filter (for example, as in the Luminex Amnis CellStream).