

**XFD680 Anti-human CD29 Antibody *HI29a,
XFD680 Same Structure to Alexa Fluor™
680***Catalog number: 10290190, 10290191
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
Immunogen	CD29 (ITGB1, Integrin β 1)
Clone	HI29a
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

The HI29a monoclonal antibody binds with human CD29, a 130 kD transmembrane protein often found on the surface of fibroblasts and platelets. CD29 is a member of essential cellular pathways, namely, the cytokine-mediated signaling pathway, integrin-mediated signaling

pathway and CD40 signaling pathway. Also, it has been thought to be involved with vital biological processes like cell adhesion, especially cell adhesion mediated by integrin. In some organisms, CD29 acts to positively regulate apoptotic process, acts to positively regulate signaling receptor activity and enhances angiogenesis. From a research standpoint, it is of biological interest due to its association with critical macromolecules/ligands such as VCAM-1. CD29 is a fairly uncommon antibody target, with a little more than 7000 publications in the last decade. Even still, CD29 has been widely used in cell adhesion, cell biology and stem cells research, frequently 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).