

XFD594 Anti-human CD29 Antibody *HI29a*

Catalog Number: 10290170, 10290171

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 IgG1
Immunogen	CD29 (ITGB1, Integrin β1)
Clone	HI29a
Conjugate	AF594

Biological Properties

Appearance	Purple liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF594 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 AF594

Excitation Wavelength 590 nm

Emission Wavelength 618 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 XFD594 (ex/em = 590/618 nm). XFD594 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 594 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 592 nm laser and 610/30 nm bandpass filter (for example, as in the Luminex Amnis ImageStream).