

XFD647 Anti-human CD38 Antibody *HI157*

Catalog Number: 10381180, 10381181

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 IgG2a
Immunogen	CD38 (ADP-ribosyl cyclase, T10)
Clone	HI157
Conjugate	AF647

Biological Properties

Appearance	Dark blue liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF647 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	AF647
Excitation Wavelength	650 nm
Emission Wavelength	671 nm

Applications

The HI157 monoclonal antibody binds to human CD38, a 45 kD transmembrane glycoprotein typically found on the surface of plasma cells, dendritic cells and myeloids. CD38 acts in important cellular pathways, in particular, the B cell receptor signaling pathway and apoptotic signaling pathway. Also, in many organisms, it acts to positively regulate vasoconstriction, acts to positively regulate cell growth and is a positive regulator of insulin secretion. From a research standpoint, it is of biological interest due to its association with essential macromolecules/ligands such as CD3/TcR complex, HLA Class II, Hyaluronic acid and CD31. CD38 is a fairly uncommon antibody target, with a little more than 10000 publications in the last decade. Even still, CD38 is often used in flow cytometry applications as a phenotypic marker for differentiation of cell types, specifically in the study of immunology. This antibody was purified through affinity chromatography and conjugated to XFD647 (ex/em = 650/671 nm). XFD647 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 647 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 642 nm laser and 702/85 nm bandpass filter (for example, as in the Luminex Amnis FlowSight).