

XFD647 Anti-human CD7 Antibody *HIT7*

Catalog Number: 10070180, 10070181

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	CD7 (gp40, TP41)
Clone	HIT7
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

HIT7 is an anti-human monoclonal antibody that recognizes the CD7 antigen. CD7 (also known as gp40) is a 40 kD single-pass type I membrane protein that is located on the surface of cells like NK cells, stem cells and T cells. CD7 has been closely linked to essential biological processes such as immune response, particularly adaptive immune response. Furthermore, it is involved with important cellular pathways, namely, the transmembrane receptor protein tyrosine kinase signaling pathway. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands like PI3-Kinase. CD7 is a fairly uncommon antibody target, with a little more than 3600 publications in the last decade. Even still, CD7 is commonly used in flow cytometry applications as a phenotypic marker for differentiation of cell types, especially in the study of immunology and costimulatory molecules. 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 664/20 nm bandpass filter (for example, as in the Luminex Guava easyCyte).