

XFD680 Anti-human CD117 Antibody *104D2*

Catalog Number: 11170190, 11170191

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	CD117 (c-kit, SCFR)
Clone	104D2
Conjugate	AF680

Biological Properties

Appearance	Blue liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF680 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	AF680
Excitation Wavelength	681 nm
Emission Wavelength	704 nm

Applications

The 104D2 monoclonal antibody reacts with human CD117, a 145 kD single-pass type i membrane protein typically found on the surface of leukemias, embryonic stem cells, mesenchymal stem cells and mast cells. CD117 has been closely linked to vital biological processes like germ cell migration, specifically ectopic germ cell programmed cell death. In addition, in some organisms, it acts to positively regulate pseudopodium assembly, plays a role in the upregulation of long-term neuronal synaptic plasticity and is an inhibitor of programmed cell death. CD117 is a component of critical cellular pathways, for example, the transmembrane receptor protein tyrosine kinase signaling pathway, Kit signaling pathway and Fc receptor signaling pathway. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands such as MGF, SCF and KL. CD117 is a moderately popular antibody target, with over 11000 publications in the last decade. CD117 has been widely used in stem cells and immunology 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 a chemical structure similar to that of Alexa Fluor® 680 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 642 nm laser and 702/87 nm bandpass filter (for example, as in the Luminex Amnis CellStream).