

**XFD680 Anti-human CD47 Antibody \*HIRH47\***

Catalog Number: 10470190, 10470191

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	CD47 (gp42, IAP, neurophilin, MER6, Integrin associated protein)
Clone	HIRH47
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

---

HIRH47 is an anti-human monoclonal antibody that targets the CD47 antigen. CD47 (sometimes referred to as MER6, Integrin associated protein or Rh-associated protein) is a 42 - 52 kD multi-pass membrane protein that is found on the surface of cells like T cells. In some organisms, CD47 upregulates cell population proliferation, acts to positively regulate phagocytosis and is involved in the positive regulation of stress fiber assembly. In addition, it is a component of key cellular pathways, namely, the integrin-mediated signaling pathway and negative regulation of Fc-gamma receptor signaling pathway involved in phagocytosis. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands like SIRP, Thrombospondin and CD61. CD47 is a fairly uncommon antibody target, with a little more than 5000 publications in the last decade. Even still, CD47 is often used in flow cytometry applications as a phenotypic marker for differentiation of cell types, particularly in the study of immunology. 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).