

XFD488 Anti-human CD28 Antibody *9.3*

Catalog Number: 10281150, 10281151

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	CD28 (Tp44, T44)
Clone	9.3
Conjugate	AF488

Biological Properties

Appearance	Orange liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF488 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	AF488
Excitation Wavelength	499 nm
Emission Wavelength	520 nm

Applications

The 9.3 monoclonal antibody binds with human CD28, a 44 kD transmembrane glycoprotein typically located on the surface of natural killer cells and plasma cells. CD28 is a member of vital cellular pathways, namely, the cell surface receptor signaling pathway, apoptotic signaling pathway and T cell receptor signaling pathway. Also, in some organisms, it is involved in the positive regulation of interleukin-4 production, is involved in the positive regulation of inflammatory response to antigenic stimulus and promotes isotype switching to IgG isotypes. From a research standpoint, it is of biological interest due to its association with important macromolecules/ligands such as PI3-kinase, CD86 and CD80. CD28 is a very popular antibody target, with over 30000 publications in the last decade. CD28 is vital to costimulatory molecules research, typically serving as a phenotypic marker for differentiating cell types in flow cytometric applications. This antibody was purified through affinity chromatography and conjugated to XFD488 (ex/em = 499/520 nm). XFD488 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 488 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 488 nm laser and 525/50 nm bandpass filter (for example, as in the Miltenyi Biotec MACSQuant X).