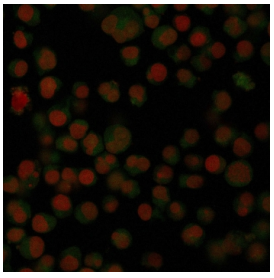
IgA Antibody CF488 Conjugate [clone IA761] (V2619CF488)

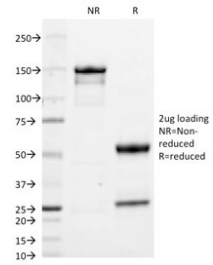
Catalog No.	Formulation	Size
V2619CF488-100T	500 ul at 0.1 mg/ml with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 Tests

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	CF488 Conjugate
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	IA761
Purity	Protein G affinity chromatography
UniProt	P01876
Localization	Cell surface, cytoplasmic, secreted
Applications	Flow cytometry: 5ul/test/10^6 cells in 0.1ml Immunofluorescence: 1-2ug/ml
Limitations	This IgA antibody is available for research use only.



Immunofluorescence IgA Antibody CF488 Conjugate Clone IA761 in human Raji cells. Immunofluorescent analysis of PFA-fixed human Raji cells stained with IgA Antibody CF488 Conjugate Clone IA761. The mouse monoclonal antibody directly labeled with CF488 produces green fluorescence highlighting IgA-positive signal within the cell population, while nuclei are counterstained with Reddot nuclear dye (red). The fluorescence pattern demonstrates detection of Immunoglobulin alpha heavy chain (IGHA), the heavy chain component of IgA antibodies, allowing visualization of IgA-associated signal in cultured human B cell-derived Raji cells.



SDS-PAGE analysis of purified, BSA-free IgA antibody (clone IA761) as confirmation of integrity and purity.

Description

Immunoglobulin alpha heavy chain (IGHA) is the defining heavy chain component of immunoglobulin A (IgA), a major antibody class involved in mucosal immune protection. IgA antibodies are produced by differentiated B lymphocytes and plasma cells and play a critical role in defending mucosal surfaces against pathogens. The IgA Antibody CF488 Conjugate Clone IA761 recognizes the alpha heavy chain of IgA and provides a fluorescent detection reagent useful for identifying IgA-producing cells in biological samples. IgA antibodies are abundant in mucosal tissues and secretions including the gastrointestinal tract, respiratory tract, and genitourinary tract where they contribute to immune exclusion of microbes.

IgA antibody reagents are commonly used to study Immunoglobulin A, also referred to as IgA or Immunoglobulin alpha heavy chain in immunology literature. The IGHA gene encodes the heavy chain component that defines the IgA immunoglobulin class. Humans express two subclasses of IgA, IgA1 and IgA2, both of which contain the IGHA heavy chain but differ in hinge region structure and distribution among tissues. Plasma cells located in mucosa-associated lymphoid tissues such as tonsils, lymph nodes, Peyer's patches, and intestinal mucosa produce IgA antibodies that are secreted into mucosal fluids to protect epithelial surfaces from infection.

Secretory IgA is generated when polymeric IgA antibodies are transported across epithelial cells by the polymeric immunoglobulin receptor. This process results in release of IgA into mucosal secretions as a stabilized complex that includes the secretory component. In these environments IgA antibodies bind microbial antigens and toxins, preventing attachment to epithelial cells and limiting inflammatory responses that could damage mucosal tissues.

Because IgA-producing plasma cells are abundant in lymphoid tissues and mucosal immune sites, an IgA antibody is frequently used to detect plasma cell populations and characterize humoral immune responses. Fluorescently conjugated IgA antibodies such as this CF488 conjugate enable visualization of IgA-expressing cells in fluorescence microscopy and related imaging applications. Detection of Immunoglobulin alpha heavy chain expression therefore provides a useful approach for studying plasma cell distribution, mucosal immunity, and antibody-mediated immune responses in research settings.

For an antibody developed for total human IgA detection, see our Human IgA Antibody for ELISA / Anti-IgA Detection Antibody page.

Application Notes

Optimal dilution of the IgA Antibody CF488 Conjugate Clone IA761 should be determined by the researcher.

Immunogen

Purified human immunoglobulin alpha heavy chain was used as the immunogen for the Anti-IgA antibody.

Storage

Store the IgA antibody at 2-8oC, protected from light.

Alternate Names

Immunoglobulin A antibody, IGHA antibody, Ig alpha heavy chain antibody, IGHA1 antibody, IGHA2 antibody

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