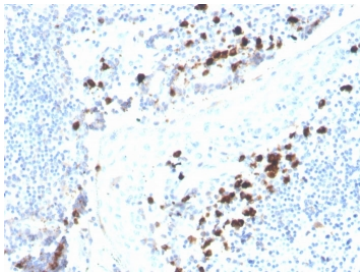
IgA Heavy Chain Antibody Recombinant Mouse MAb rHISA43 / IGHA [clone rHISA43] (V7859)

Catalog No.	Formulation	Size
V7859-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7859-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7859SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

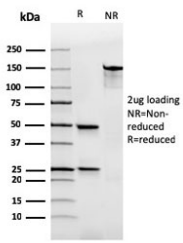
Recombinant MOUSE MONOCLONAL

Bulk quote request

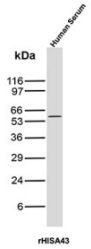
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rHISA43
Purity	Protein G affinity chromatography
UniProt	P01876
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This IgA Heavy Chain antibody is available for research use only.



IHC IgA Heavy Chain Antibody Recombinant Mouse MAb rHISA43 in human tonsil. Immunohistochemistry analysis of IgA Heavy Chain Antibody Recombinant Mouse MAb rHISA43 in formalin-fixed paraffin-embedded human tonsil tissue. The recombinant mouse monoclonal antibody (clone rHISA43) shows cytoplasmic HRP-DAB brown staining in scattered plasma cells within the tonsillar lymphoid tissue, consistent with expression of Immunoglobulin alpha heavy chain (IGHA), the heavy chain component of IgA antibodies produced by differentiated B cells. Positive staining is primarily observed in plasma cells located within lymphoid regions, while surrounding lymphocytes remain largely negative. Antigen retrieval was performed by boiling tissue sections in pH 9 Tris-EDTA buffer (10mM Tris, 1mM EDTA) for 10-20 minutes followed by cooling prior to antibody incubation.



SDS-PAGE analysis of purified, BSA-free recombinant IgA Heavy Chain antibody (recombinant mouse mAb clone rHISA43) as confirmation of integrity and purity.



IgA Heavy Chain Antibody rHISA43 in Human Serum WB. Western blot testing of human serum with IgA Heavy Chain Antibody recombinant mouse mAb rHISA43 detects a strong, discrete band at approximately 55-60 kDa, consistent with the expected molecular weight of the immunoglobulin alpha heavy chain. The IGHA antibody shows minimal additional reactivity under the tested conditions, producing a clean Western blot signal.

Description

Immunoglobulin alpha heavy chain (IGHA) is the defining heavy chain component of immunoglobulin A (IgA), an antibody class that plays a central role in mucosal immunity. IgA antibodies are produced by differentiated B lymphocytes and plasma cells and function as a key defense mechanism at epithelial surfaces exposed to environmental pathogens. The IgA Heavy Chain Antibody Recombinant Mouse MAb rHISA43 recognizes the alpha heavy chain of IgA and is used to investigate IgA-producing plasma cells and antibody-mediated immune responses in lymphoid and mucosal tissues. IgA antibodies are abundant in mucosal organs including the respiratory tract, gastrointestinal tract, and genitourinary tract where they contribute to immune protection by neutralizing pathogens and preventing microbial adherence to epithelial cells.

IgA antibody reagents are widely used to detect Immunoglobulin A, also referred to as IgA or Immunoglobulin alpha heavy chain in immunology literature. The IGHA gene encodes the heavy chain that defines the IgA antibody class. Humans produce two subclasses of IgA, IgA1 and IgA2, both of which contain the IGHA heavy chain but differ in hinge region structure and tissue distribution. 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 and contribute to immune surveillance.

Secretory IgA is generated when polymeric IgA antibodies interact with the polymeric immunoglobulin receptor on epithelial cells. During this process IgA is transported across epithelial barriers and released into mucosal secretions as a stabilized complex that includes a secretory component. In mucosal environments IgA antibodies bind microbial antigens and toxins, preventing attachment to epithelial surfaces and limiting inflammatory damage while maintaining immune protection.

Because IgA-producing plasma cells are widely distributed in mucosal tissues and lymphoid organs, an IgA heavy chain antibody is frequently used to identify plasma cell populations and study humoral immune responses. Detection of Immunoglobulin alpha heavy chain expression provides insight into antibody production, plasma cell differentiation, and mucosal immune activity. IGHA expression may also be evaluated in studies examining immune responses to infection, inflammatory conditions, and disorders involving B cell or plasma cell function.

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 Heavy Chain Antibody Recombinant Mouse MAb rHISA43 should be determined by the researcher. It is reactive with all subclasses of Alpha heavy chain.

Immunogen

Full length recombinant human IGHA protein was used as the immunogen for the human recombinant IgA Heavy Chain antibody.

Storage

Store the IgA Heavy Chain antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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

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