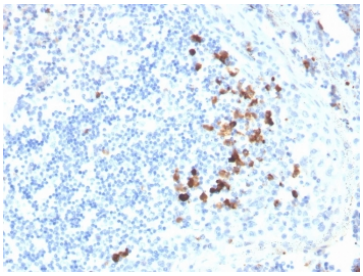
IgA Antibody Clone HISA43 / Immunoglobulin alpha heavy chain [clone HISA43] (V2617)

Catalog No.	Formulation	Size
V2617-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2617-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2617SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

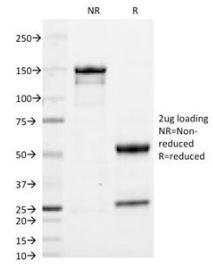
Citations (6)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	HISA43
Purity	Protein G affinity chromatography
UniProt	P01876, P01877
Localization	Cytoplasm, cell surface and secreted
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-2ug/ml 30 min RT Immunohistochemistry (FFPE) : 1-2ug/ml 30 min RT
Limitations	This IgA antibody is available for research use only.



IgA Antibody Clone HISA43 in human tonsil by immunohistochemistry. Formalin-fixed paraffin-embedded human tonsil tissue stained with IgA Antibody Clone HISA43 shows HRP-DAB brown cytoplasmic 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 cells are primarily located in interfollicular regions and surrounding lymphoid follicles, while most surrounding lymphocytes remain negative. Heat induced epitope 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 Anti-IgA antibody (clone HISA43) as confirmation of integrity and purity.

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 humoral and mucosal immune defense. IgA antibodies are produced by plasma cells derived from activated B lymphocytes and contribute to immune protection by neutralizing pathogens and toxins at mucosal surfaces and in circulation. The IgA Antibody Clone HISA43 recognizes the alpha heavy chain shared by human IgA molecules and enables detection of IgA-producing plasma cells and IgA-containing immunoglobulins in biological samples. IgA is widely distributed in mucosal tissues and secretions, where it functions as a first line of immune defense against microbial invasion.

IgA antibody reagents are commonly used to detect Immunoglobulin A, also referred to as IgA or Immunoglobulin alpha heavy chain in the scientific literature. The clone HISA43 antibody has been cited in the literature using several naming variations including HISA43, HISA-43, and HISA 43, reflecting common formatting differences used in published studies. These variations refer to the same antibody clone recognizing the IGHA heavy chain region of IgA molecules. Human IgA exists in two subclasses, IgA1 and IgA2, both of which contain the immunoglobulin alpha heavy chain encoded by the IGHA gene locus, allowing antibodies targeting IGHA to detect total IgA regardless of subclass.

IgA antibodies are produced by plasma cells located in lymphoid tissues such as bone marrow, spleen, lymph nodes, and mucosa-associated lymphoid tissues including tonsils and intestinal immune compartments. In mucosal environments polymeric IgA antibodies can be transported across epithelial cells via the polymeric immunoglobulin receptor and released into secretions as secretory IgA complexes. These antibodies bind microbial antigens and toxins, preventing pathogen attachment to epithelial surfaces and contributing to immune exclusion mechanisms that protect mucosal barriers.

Because IgA-producing plasma cells are abundant in lymphoid and mucosal tissues, detection of Immunoglobulin alpha heavy chain expression is widely used to examine humoral immune responses and plasma cell distribution. An IgA antibody such as clone HISA43 provides a useful tool for identifying IgA-positive cells and studying antibody-mediated immune activity in tissues and experimental systems focused on immune regulation and mucosal defense.

Application Notes

Optimal dilution of the IgA Antibody Clone HISA43 should be determined by the researcher.

Immunogen

Purified human IgA was used as the immunogen for the Anti-IgA antibody.

Storage

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

Alternate Names

mmunoglobulin A antibody, IGHA antibody, Ig alpha heavy chain antibody, IgA heavy chain antibody, Alpha chain IgA antibody