IgA Antibody Recombinant Rabbit MAb IGHA/7567R / Immunoglobulin alpha heavy chain [clone IGHA/7567R] (V4381)

Catalog No.	Formulation	Size
V4381-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4381-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4381SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	IGHA/7567R
Purity	Protein A/G affinity
UniProt	P01876, P01877
Localization	Cytoplasm, Cell surface, Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This IgA antibody is available for research use only.



Description

Immunoglobulin alpha heavy chain (IGHA) is a principal structural component of immunoglobulin A (IgA), an antibody

class that plays a central role in mucosal immune defense. IGHA is encoded by the IGHA gene locus and forms the heavy chain portion of IgA immunoglobulins produced by differentiated B lymphocytes and plasma cells. IgA antibodies are abundant in mucosal tissues and secretions where they help neutralize pathogens and prevent microbial attachment to epithelial surfaces. The IgA Antibody clone IGHA/7567R recognizes the alpha heavy chain of IgA and is widely used to study plasma cell distribution and humoral immune responses in lymphoid and mucosal tissues.

IgA antibody reagents are commonly used to investigate the biology of Immunoglobulin A, also referred to as IgA, Ig alpha chain, or Immunoglobulin alpha heavy chain in immunology literature. IgA exists as two subclasses, IgA1 and IgA2, both of which contain the IGHA heavy chain. These subclasses differ in hinge region structure and tissue distribution, but both contribute to the protective immune barrier at mucosal surfaces. Plasma cells located in mucosa-associated lymphoid tissue produce IgA antibodies that are secreted into mucosal fluids including saliva, intestinal secretions, tears, and respiratory tract mucus.

Secretory IgA is generated when polymeric IgA antibodies are transported across epithelial cells through interaction with the polymeric immunoglobulin receptor. During this process the antibody is released into mucosal secretions as a dimeric complex that includes a secretory component which stabilizes the molecule in extracellular environments. Through antigen binding and immune exclusion mechanisms, IgA antibodies prevent pathogen colonization and limit inflammatory damage at epithelial surfaces.

Because IgA-producing plasma cells are common in lymphoid tissues and mucosal organs, an IgA antibody is frequently used to detect plasma cell populations and characterize humoral immune responses in tissue samples. Detection of Immunoglobulin alpha heavy chain expression is particularly useful in studies of mucosal immunity, lymphoid tissue architecture, and plasma cell differentiation. Increased numbers of IgA-positive plasma cells may be observed in inflammatory conditions, immune responses to infection, and certain plasma cell or B cell disorders. Monitoring IGHA expression therefore provides valuable insight into antibody-mediated immune activity within tissues.

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 Recombinant Rabbit MAb IGHA/7567R should be determined by the researcher.

Immunogen

Full-length native purified protein corresponding to Human IgA was used as the immunogen for the recombinant IgA antibody. It is reactive with both IgA1 and IgA2 subclasses of Alpha heavy chain.

Storage

Aliquot the IgA antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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