abcam

ab316358

Anti-Human IgA antibody [15D6]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.1% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Native Full Length Protein corresponding to Human IGHA2. Database link P01877
Clone number	15D6
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

WB

Tested

Species	Human
Dilution info	0.01 µg/mL
Notes	-

Target data

See full target information IGHA2

Function	Constant region of immunoglobulin heavy chains. Immunoglobulins, also known as antibodies, are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound immunoglobulins serve as receptors which, upon binding of a specific antigen, trigger the clonal expansion and differentiation of B lymphocytes into immunoglobulins-secreting plasma cells. Secreted immunoglobulins mediate the effector phase of humoral immunity, which results in the elimination of bound antigens (PubMed:20176268, PubMed:22158414). The antigen binding site is formed by the variable domain of one heavy chain, together with that of its associated light chain. Thus, each immunoglobulin has two antigen binding sites with remarkable affinity for a particular antigen. The variable domains are assembled by a process called V-(D)-J rearrangement and can then be subjected to somatic hypermutations which, after exposure to antigen and selection, allow affinity maturation for a particular antigen (PubMed:17576170, PubMed:20176268). Ig alpha is the major immunoglobulin class in body secretions (PubMed:2241915).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1 month
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Human IgA also known as Immunoglobulin A is an antibody that plays a critical role in the immune system. It weighs approximately 160 kDa and is predominantly found in mucosal areas such as the respiratory and gastrointestinal tracts as well as in saliva tears and breast milk. In its molecular form IgA often exists as a dimer two IgA molecules linked by a joining (J) chain. The primary function of IgA is to protect mucosal surfaces by neutralizing pathogens and toxins preventing them from adhering to epithelial cells.
Biological function summary	IgA contributes to the immune defense by participating in immune exclusion mechanisms. As part of this process IgA interacts with the polymeric immunoglobulin receptor (pIgR) to transport across epithelial cells making it important for mucosal immunity. IgA is also connected with secretory components that further stabilize and enhance its longevity in mucosal secretions. It plays an integral role in forming complexes that assist in eliminating antigens from mucosal surfaces.
Pathways	Human IgA is an important player in the mucosal immune response pathway defending against pathogens by zeroing in on antigen neutralization. Its interactions with the pIgR are central to the transport mechanism through epithelial cells where the IgA-pIgR complex becomes the secretory IgA. This pathway shares a strong connection with related proteins such as IgM another immunoglobulin involved in the early stages of immune response and found in serum.
Associated diseases and disorders	IgA is associated with IgA nephropathy a kidney disorder caused by the deposition of IgA in the kidneys leading to inflammation and functional impairment. Additionally IgA plays a role in celiac disease where IgA antibodies are produced in response to gluten and can contribute to intestinal damage. In these conditions the relationship between IgA and other proteins like complement component 3 (C3) is significant as improper regulation of these pathways may lead to tissue damage and disease progression.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

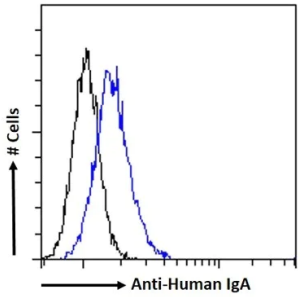
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

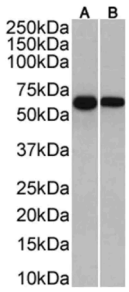
Full details and terms and conditions can be found here:
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2 product images



Flow Cytometry - Anti-Human IgA Antibody [15D6] (ab316358)

Blue line: Flow cytometric analysis of human peripheral blood leukocytes. Primary incubation 1hr (1:50-1:100 dilution) followed by Alexa Fluor 488 ® conjugated goat Anti-mouse IgG (1:1000 dilution). Black line: Anti-Fluorescein Isotype control.



Western blot - Anti-Human IgA Antibody [15D6] (ab316358)

(0.01 µg/ml) staining in human plasma (A) and serum (B) (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.
All lanes:
Western blot - Anti-Human IgA Antibody [15D6] (ab316358) at 0.01 µg/mL

Lane 1:
Human plasma

Lane 2:
Human serum

Developed using the ECL technique.

Exposure time: 1hr

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.