abcam

ab233885

Anti-Human IgG antibody [IG266] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Native Full Length Protein corresponding to Human IGHG4. Database link P01861
Carrier free	Yes
Clone number	IG266
Purification technique	Affinity purification Protein A
Specificity	ab200699 recognizes a protein of 75 kDa, identified as gamma heavy chain of Human immunoglobulins. It does not cross-react with alpha (IgA), mu (IgM), epsilon (IgE), or delta (IgD), heavy chains, T-cells, monocytes, granulocytes, or erythrocytes.
Light chain type	kappa
Concentration	1.064 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information IGHG1

Function

Constant region of immunoglobulin (Ig) heavy chains. Igs are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound Igs serve as receptors, which upon binding to a specific antigen trigger the clonal expansion and differentiation of B lymphocytes into Ig-secreting plasma cells. Secreted Igs known as antibodies mediate the effector phase of humoral immunity by blocking the interaction of infectious antigens with cellular receptors (via the antigen-binding region) and eliciting effector mechanisms that lead to pathogen neutralization (via the constant region) (PubMed:17576170, PubMed:20176268, PubMed:22158414). The antigen-binding region is formed by the variable domain of one heavy chain paired with the variable domain of its associated light chain. Each Ig molecule has two antigen-binding sites with remarkable affinity for a particular antigen due to V-(D)-J rearrangement, somatic hypermutations and affinity maturation of the variable domains upon antigen exposure (PubMed:17576170, PubMed:20176268, PubMed:22158414). The constant region defines the Ig isotype that perform distinct sets of effector functions. B cells diversify and rearrange their Ig constant

regions through class-switch recombination, a process by which the constant region is switched from one Ig isotype to another, namely from IgM and IgD to IgG, IgA and IgE (PubMed:17576170, PubMed:20176268, PubMed:22158414). The constant region of Ig gamma-1 (IgG1) isotype interacts (via the fragment crystallizable, Fc) with receptors on innate immune cells and the complement system to mediate humoral effector functions, including antibody-dependent cellular cytotoxicity or phagocytosis, complement-dependent cytotoxicity and inflammatory responses.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

This product has switched from a hybridoma to recombinant production method on 14th March 2024.

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

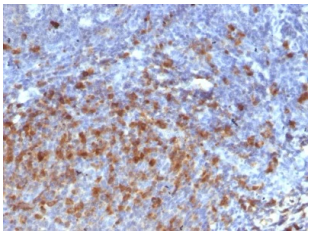
We do not recommend this combination. It is not covered by our product promise.

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:
Terms & Conditions.

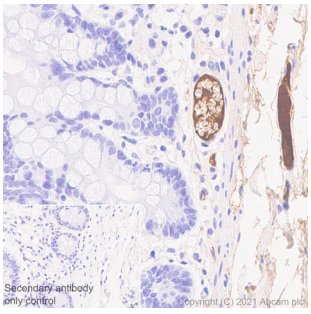
6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Human IgG antibody [IG266] - BSA and Azide free (ab233885)

Human IgG Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Human IgG antibody

This data was developed using the same antibody clone in a different buffer formation (ab200699). Formalin-fixed, paraffin-embedded human tonsil tissue stained for IgG using ab200699 at 1 µg/ml dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Human IgG antibody [IG266] - BSA and Azide free (ab233885)

This data was developed using the same antibody clone in a different buffer formation (ab200699).

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Human IgG with ab200699 at 1/1000 (0.831 ug/ml) dilution, followed by a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (ab214879).

Cytoplasmic staining in plasma of human colon.

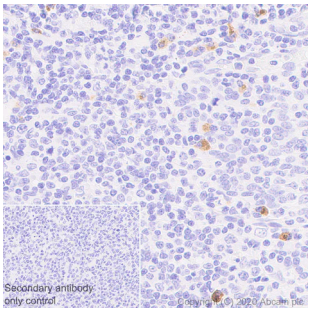
The section was incubated with ab200699 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (ab214879).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Human IgG antibody [IG266] - BSA and Azide free (ab233885)

This data was developed using the same antibody clone in a different buffer formation (ab200699).

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling Human IgG with ab200699 at 1/1000 (0.831 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Cytoplasmic staining in plasmocyte of human tonsil.

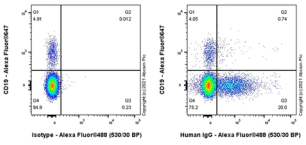
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Flow Cytometry - Anti-Human IgG antibody [IG266] - BSA and Azide free (ab233885)

Human IgG Flow Cytometry staining using mouse Anti-Human IgG antibody

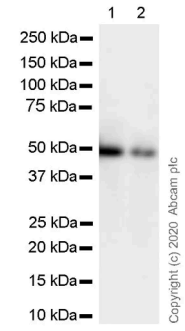
This data was developed using the same antibody clone in a different buffer formation (ab200699).

Flow cytometric analysis of Human peripheral blood mononuclear cell (PBMC) cells labelling Human IgG with ab200699 at 1/800 dilution (0.1 ug) / Right compared with a Mouse monoclonal IgG / Left.

Goat anti mouse IgG (Alexa Fluor® 488, ab150113) was used as the secondary antibody at 1/2000 dilution.

Cells were stained with mouse IgG or ab200699. Then stained with anti-CD19 conjugated to Alexa Fluor® 647.

Gated on viable cells.



Western blot - Anti-Human IgG antibody [IG266] - BSA and Azide free (ab233885)

Human IgG Western blot staining using mouse Anti-Human IgG antibody

This data was developed using the same antibody clone in a different buffer formation (ab200699).

Blocking and diluting buffer and concentration: 5% NFDM/TBST

All lanes:
Western blot - Anti-Human IgG antibody [IG266] (ab200699) at 1/1000 dilution

Lane 1:
Human spleen tissue lysate at 10 µg

Lane 2:
Human tonsil tissue lysate at 10 µg

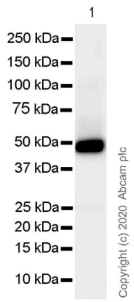
Secondary

All lanes:
Western blot - Anti-mouse IgG for IP (HRP) (ab131368) at 1/1000 dilution

Predicted band size: 36 kDa

Observed band size: 50 kDa

Exposure time: 6s



Western blot - Anti-Human IgG antibody [IG266] - BSA and Azide free (ab233885)

Human IgG Western blot staining of Human serum using mouse Anti-Human IgG antibody

This data was developed using the same antibody clone in a different buffer formation (ab200699).

Blocking and diluting buffer and concentration: 5% NFDM/TBST

All lanes:
Western blot - Anti-Human IgG antibody [IG266] (ab200699) at 1/5000 dilution

All lanes:
Human serum at 10 µg

Secondary

All lanes:
Western blot - Anti-mouse IgG for IP (HRP) (ab131368) at 1/1000 dilution

Predicted band size: 36 kDa

Observed band size: 50 kDa

Exposure time: 8s

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