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# IGHG1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10959c

## Product Information

| | |
|---|---|
| **Application** | WB, FC, E |
| **Primary Accession** | P01857 |
| **Other Accession** | P01860 |
| **Reactivity** | Human, Rat |
| **Predicted** | Mouse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB21766 |
| **Calculated MW** | 43912 |
| **Antigen Region** | 154-180 |

## Additional Information

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|---|---|
| **Other Names** | Ig gamma-1 chain C region, IGHG1 |
| **Target/Specificity** | This IGHG1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 154-180 amino acids from the Central region of human IGHG1. |
| **Dilution** | WB~~1:1000 FC~~1:25 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | IGHG1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

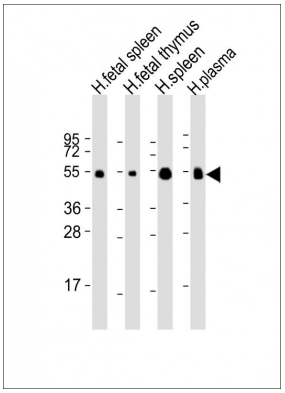
## Protein Information

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|---|---|
| **Name** | IGHG1 {ECO:0000303\|PubMed:11340299, ECO:0000303\|Ref.14} |
| **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. |

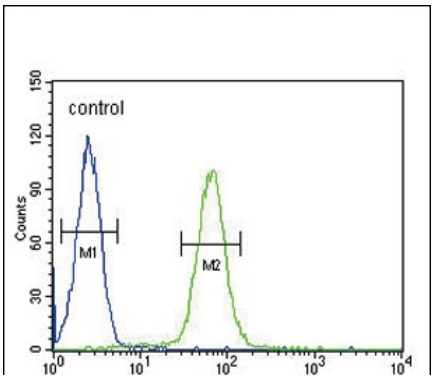
Secreted Igs known as antibodies mediate the effector phase of humoral immunity by blocking the interaction of infectious antigens with cellular receptors (via the antigen-binding region) and eliciting effector mechanisms that lead to pathogen neutralization (via the constant region) (PubMed:17576170, 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.

**Cellular Location** [Isoform 1]: Secreted

## Images




All lanes : Anti-IGHG1 Antibody (Center) at 1:2000 dilution Lane 1: human fetal spleen lysate Lane 2: human fetal thymus lysate Lane 3: human spleen lysate Lane 4: human plasma lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 36 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




IGHG1 Antibody (Center) (Cat. #AP10959c) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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