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Anti-Human IgG3 IGHG3 Monoclonal Antibody

Catalog # ABO14477

Product Information

Application	WB, IP
Primary Accession	P01860
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid
Description	Anti-Human IgG3 IGHG3 Monoclonal Antibody . Tested in WB, IP applications. This antibody reacts with Human.

Additional Information

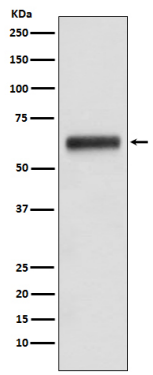
Other Names	Immunoglobulin heavy constant gamma 3 {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.12}, HDC, Heavy chain disease protein, Ig gamma-3 chain C region, IGHG3 {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.12}
Calculated MW	49093
Application Details	WB 1:500-1:2000 IP 1:50
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: ACIA-9
Immunogen	A synthesized peptide derived from human Human IgG3 IgG is a monomeric immunoglobulin, built of two heavy chains gamma and two light chains. Each molecule has two antigen binding sites. This is the most abundant immunoglobulin and is approximately equally distributed in blood and in tissue liquids, constituting 75% of serum immunoglobulins in humans. There are 4 subclasses: IgG1 (66%), IgG2 (23%), IgG3 (7%) and IgG4 (4%).
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	IGHG3 {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.12}

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-3 (IgG3) 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



Western blot analysis of Human IgG3 expression in human plasma lysate.

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