

Anti-Human IgG1 Rabbit Monoclonal Antibody

Catalog # ABO16124

Product Information

Application	WB
Primary Accession	P01857
Host	Rabbit
Isotype	IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid
Description	Anti-Human IgG1 Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human.

Additional Information

Other Names	Immunoglobulin heavy constant gamma 1 {ECO:0000303 PubMed:11340299, ECO:0000303 Ref.13}, Ig gamma-1 chain C region, Ig gamma-1 chain C region EU, Ig gamma-1 chain C region KOL, Ig gamma-1 chain C region NIE, IGHG1 {ECO:0000303 PubMed:11340299, ECO:0000303 Ref.13}
Calculated MW	43912
Application Details	WB 1:500-1:2000
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: 27I03
Immunogen	A synthesized peptide derived from human IgG1
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

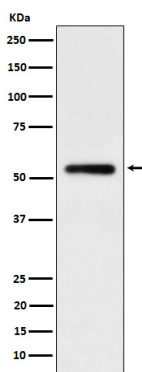
Name	IGHG1 {ECO:0000303 PubMed:11340299, ECO:0000303 Ref.14}
Function	Constant region of immunoglobulin (Ig) heavy chains. Igs are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound Igs serve as receptors, which upon binding 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



Western blot analysis of human IgG1 expression in Human tonsil cell lysate.

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