10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IgG (Immunoglobulin Gamma Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone B33/20]
Catalog # AH11522

Product Information

Application	IF, FC, IHC-P
Primary Accession	P01857
Other Accession	3500 (IGHG1), 3501 (IGHG2), 3502 (IGHG3), 3503 (IGHG4), 510635, P01859, P01860, P01861
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	B33/20
Calculated MW	43912

Additional Information

Other Names	Ig gamma-1 chain C region, IGHG1
Application Note	IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	IgG (Immunoglobulin Gamma Heavy Chain) (B-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

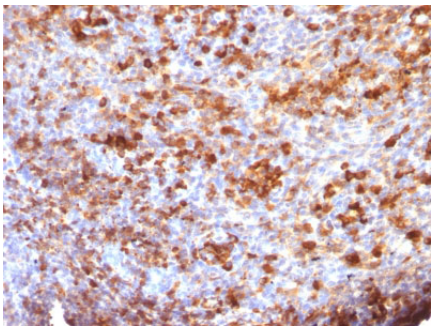
Name	IGHG1 {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.13}
Function	Constant region of immunoglobulin heavy chains. Immunoglobulins, also known as antibodies, are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound immunoglobulins 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). Mediates IgG effector functions on monocytes triggering ADCC of virus-infected cells.
Cellular Location	[Isoform 1]: Secreted

Background

Recognizes a protein of 75kDa, identified as γ heavy chain of human immunoglobulins. Its epitope maps in CH2 domain of Fc region of IgG. It reacts with all sub-classes of γ chain of human immunoglobulins. It does not cross-react with α (IgA), μ (IgM), ε (IgE), or δ (IgD), heavy chains, T-cells, monocytes, granulocytes, or erythrocytes. This MAb is useful in the identification of leukemias, plasmacytomas, and certain non-Hodgkin □s lymphomas. The most common feature of these malignancies is the restricted expression of a single heavy chain class. Demonstration of clonality in lymphoid infiltrates indicates that the infiltrate is clonal and therefore malignant.

Images



Formalin-fixed, paraffin-embedded human Tonsil stained with IgG Monoclonal Antibody (B33/20)