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Anti-IGHD Monoclonal Antibody

Catalog # ABO14706

Product Information

Application	WB, IHC
Primary Accession	P01880
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid
Description	Anti-IGHD Monoclonal Antibody . Tested in WB, IHC applications. This antibody reacts with Human.

Additional Information

Other Names	Immunoglobulin heavy constant delta {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.15}, Ig delta chain C region, Ig delta chain C region NIG-65, Ig delta chain C region WAH, IGHD {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.15}
Calculated MW	47500
Application Details	WB 1:500-1:2000 IHC 1:100-1:500
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: AFBO-9
Immunogen	A synthesized peptide derived from human IGHD There are two named isoforms of IGHD produced by alternative splicing, a secreted form and a single pass type I membrane protein.
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.

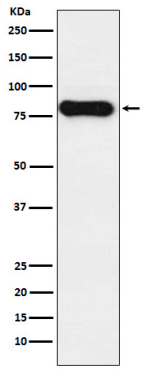
Protein Information

Name	IGHD {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.15}
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). IgD is the major antigen receptor isotype on the surface of most peripheral B-cells, where it is coexpressed with IgM. The membrane- bound IgD (mIgD) induces the phosphorylation of CD79A and CD79B by the Src family of protein tyrosine kinases. Soluble IgD (sIgD) concentration in serum below those of IgG, IgA, and IgM but much higher than that of IgE. IgM and IgD molecules present on B cells have identical V regions and antigen-binding sites. After the antigen binds to the B-cell receptor, the secreted form sIgD is shut off. IgD is a potent inducer of TNF, IL1B, and IL1RN. IgD also induces release of IL6, IL10, and LIF from peripheral blood mononuclear cells. Monocytes seem to be the main producers of cytokines in vitro in the presence of IgD (PubMed:10702483, PubMed:11282392, PubMed:8774350).

Cellular Location [Isoform 1]: Secreted

Images



Western blot analysis of IGHD expression in Humantonsil cell lysate.