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IGHD Antibody

Rabbit mAb
Catalog # AP91934

Product Information

Application	WB, IHC
Primary Accession	P01880
Reactivity	Human
Clonality	Monoclonal
Other Names	IGHD; IgD; Immunoglobulin delta;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	47500

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:100~1:500
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human IGHD
Description	There are two named isoforms of IGHD produced by alternative splicing, a secreted form and a single pass type I membrane protein.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

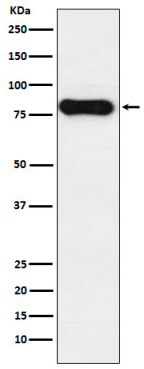
Protein Information

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.

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