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IgD

Mouse Monoclonal antibody(Mab)
Catalog # AD80324

Product Information

Application	IHC-P
Primary Accession	P01880
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	352E3K6
Calculated MW	47500

Additional Information

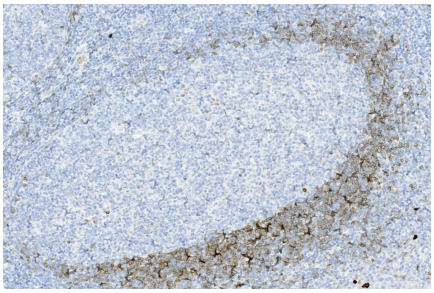
Gene Name	IGHD {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.15}
Other Names	Immunoglobulin heavy constant delta {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.15}, Ig delta chain C region, Ig delta chain C region NIG-65, Ig delta chain C region WAH, IGHD {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.15}
Dilution	IHC-P~~Ready-to-use
Storage	Maintain refrigerated at 2-8°C.
Precautions	IgD Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

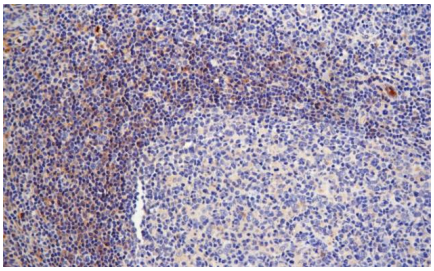
Name	IGHD {ECO:0000303|PubMed:11340299, ECO:0000303|Ref.15}
Function	Constant region of immunoglobulin heavy chains. Immunoglobulins, also known as antibodies, are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound immunoglobulins 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



Immunohistochemical analysis of formalin-fixed and paraffin-embedded human tonsil tissue was performed with IgD primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.



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