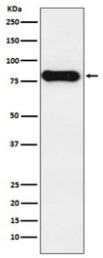
IgD Antibody for WB / Immunoglobulin D Western Blot Antibody [clone AFBO-9] (RQ5075)

Catalog No.	Formulation	Size
RQ5075	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AFBO-9
Purity	Affinity purified
UniProt	P01880
Applications	Western blot: 1:500-1:2000
Limitations	This IgD antibody is available for research use only.



IgD Antibody for WB western blot analysis of human tonsil lysate. Western blot testing of human tonsil lysate with IgD Antibody for WB shows a band detected at approximately 70-75 kDa. The predicted molecular weight of the IgD heavy chain is approximately 64 kDa, and the slightly higher apparent migration observed on SDS-PAGE is consistent with glycosylation of the Immunoglobulin D heavy chain.

Description

Immunoglobulin D (IgD) is one of the five major antibody isotypes produced by B lymphocytes and is encoded by the IGHD gene. IgD functions primarily as a membrane-bound component of the B cell receptor complex on mature naive B lymphocytes where it participates in antigen recognition and immune activation. IgD Antibody for WB is designed for detection of Immunoglobulin D in protein samples separated by SDS-PAGE and analyzed by western blotting.

IgD belongs to the immunoglobulin superfamily and is composed of two delta heavy chains paired with two

immunoglobulin light chains. In serum and plasma, IgD is typically present as a monomeric immunoglobulin molecule. During western blot analysis under reducing conditions, disulfide bonds linking the heavy and light chains are disrupted, allowing the IgD heavy chain to migrate independently during electrophoresis. The IgD delta heavy chain typically resolves near approximately 55-60 kDa on SDS-PAGE gels, corresponding to the molecular mass of the IGHD gene product.

Western blot analysis of immunoglobulins is commonly used to evaluate antibody composition, confirm immunoglobulin isotype identity, and detect immunoglobulin heavy chains in biological samples such as serum, plasma, or purified antibody preparations. Detection of the IgD heavy chain is particularly useful for distinguishing IgD from other immunoglobulin classes such as IgG, IgA, IgM, and IgE, each of which contains structurally distinct heavy chain proteins that migrate at characteristic molecular weights.

In immunology and antibody engineering studies, western blot detection of IgD can support analysis of B cell receptor expression, immunoglobulin secretion, and antibody purification workflows. Because IgD is present in relatively low concentrations in human serum compared with IgG or IgA, sensitive antibody reagents are required for reliable detection following electrophoretic separation and membrane transfer.

A recombinant rabbit monoclonal IgD Antibody for WB such as clone AFBO-9 provides a highly specific reagent for detecting the IgD heavy chain in western blot experiments. This antibody can be used to identify IgD in serum samples, purified immunoglobulin preparations, or B cell-derived protein lysates, enabling researchers to analyze immunoglobulin expression and confirm the presence of the IGHD heavy chain in biochemical assays.

For detection of total human IgD, see our Recombinant Human IgD Antibody RM123 page.

Application Notes

Optimal dilution of the IgD Antibody for WB should be determined by the researcher.

Immunogen

A synthetic peptide specific to human IGHD was used as the immunogen for the IgD antibody.

Storage

Store the IgD antibody at -20oC.

Alternate Names

Immunoglobulin D antibody, IgD antibody, IGHD antibody, IgD heavy chain antibody

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