

Rabbit anti-Human IgD Polyclonal Antibody | anti-IgD antibody

IgD

CATALOG # AAA59433	HOST Rabbit	REACTIVITY Human
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PRODUCT SYNONYMS

IgD; Polyclonal Antibody; anti-IgD antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Form/Format	IgD is a purified immunoglobulin fraction of rabbit antiserum that is filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.
Immunogen	IgD isolated from a pool of normal human plasma.
Control	Tonsil, Lymph Node
Localization	Cytoplasmic, Membranous
Reactivity Note	Paraffin, Frozen
Precautions	1. This product contains <0.1% sodium azide (NaN₃) as a preservative. Ensure proper handling procedures are used with this reagent. 2. Always wear personal protective equipment such as laboratory coat, goggles and gloves when handling reagents. 3. Dispose of unused solution with copious amount of water. 4. Do not ingest reagent. If reagent is ingested, seek medical advice immediately. 5. Avoid contact with eyes. If contact occurs, flush with large quantities of water. 6. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar). 7. For additional safety information refer to Safety Data Sheet for this product. 8. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Laboratories" (see References in this document).
Specimen Preparation	Paraffin sections: The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using ImmunoDNA Retriever with Citrate, ImmunoDNA Retriever with EDTA or ImmunoDNA Digester. See reverse side for complete protocol. Tissue should remain hydrated via use of Immuno/DNA Washer solutions. Frozen sections and cell preparations: The antibody can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations.
Staining Procedure Preparation for Frozen Tissues	1. Embed the specimen in OCT inside a cryostat. 2. Cut sections at 4-5 microns a and mount on a positively charged glass slide such as the Hydrophilic Plus Slides. 4. Air dry at 58-60°C for 10 minutes. 5. Fix in acetone 100% for 2-10 minutes. 6. Air dry for another 2 minutes.

Preparation for FFPE Tissues

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Hydrophilic Plus Slides.
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat induced epitope retrieval (HIER) using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate or EDTA.
5. Any of three heating methods may be used:
 - a. TintoRetriever Pressure Cooker or Equivalent
Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. TintoRetriever PT Module or Water Bath Method
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.
 - c. Conventional Steamer Method
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a steamer, cover and steam for 30-60 minutes.
6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
7. Wash slides with ImmunoDNA washer or DI water.
8. For manual staining, perform antibody incubation in the dark at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer's instructions.
9. Continue with IHC and IF staining protocol.

Preparation and Storage

Storage:

Store at 2-8 degree C (Control Slides: Store at 20-25 degree C).

Stability:

This product is stable up to the expiration date on the product label. Do not use after expiration date listed on package label. Temperature fluctuations should be avoided. Store appropriately when not in use and avoid prolonged exposure to room temperature conditions.

IMAGES

Antibody Type	Suggested Dilution IHC / IF	Volume/Qty
Tinto Prediluted	Ready-to-Use*	3.0 mL
Tinto Prediluted	Ready-to-Use*	7.0 mL
Tinto Prediluted	Ready-to-Use*	15.0 mL
Concentrated	1:50 / 1:25	0.1 mL
Concentrated	1:50 / 1:25	0.5 mL
Concentrated	1:50 / 1:25	1.0 mL

***Ready-to-use, for IHC only**

Application Data
Suggested Dilution

Abbreviated Immunohistochemical Protocol			
Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus AP/HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min.
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate-Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain / Coverslip	Varies	Varies	Varies

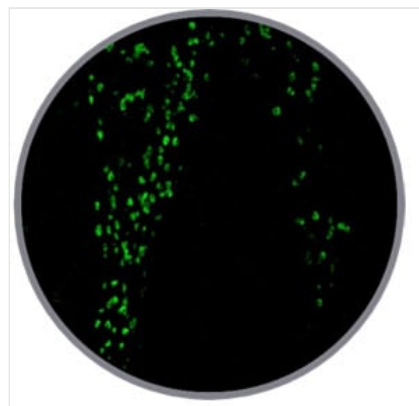
IHC (Immunohistochemistry)

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMounter or organic solvent-based resin such as PermaMounter

Abbreviated Immunofluorescence Protocol	
Step	Incubation Time
Rinse slides in IF wash buffer	5 min
Apply Antibody	30-60 min.
Rinse with 3 changes of IF wash buffer	3 x 5 min. each
Apply Rabbit FluoroDetector FITC	15 min.
Rinse with 3 changes of IF wash buffer	3 x 5 min. each
Coverslip with FluoroMounter medium	

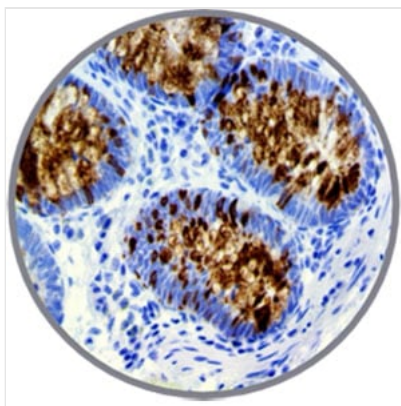
IF (Immunofluorescence)

1. Bring FluoroMounter or FluoroMounter with DAPI to room temperature.
2. Rinse slides with distilled or deionized water.
3. Remove excess of water from slides before laying them flat in the dark.
4. Turn the media bottle upside down before opening the dropper bottle.
5. Apply 1-3 drops of FluoroMounter to each slide making sure the specimen is covered.
6. Incubate 3-5 minutes at room temperature in the dark.
7. Coverslip.
8. Observe under a fluorescent microscope using the appropriate filters.
9. The slides are recommended to be stored at 2-8 degree C in the dark.



IF (Immunofluorescence)

Inset: IF of IgD on a FFPE Colon Tissue (IHC)



IHC (Immunohistochemistry)

Inset: IHC of IgD on a FFPE Colon Tissue (IHC)

ADDITIONAL INFORMATION

Related Product Information for anti-IgD antibody

Summary and Explanation:

IgD makes up about 1% of proteins in the plasma membranes of immature B-lymphocytes (coexpressed with IgM) and is also found in serum in very small amounts. It is monomeric and incorporates the alpha-heavy chain in its structure. IgD's function is currently unknown, as mice lacking IgD seem to retain normal immune responses (implying redundancy if not lack of function), and IgD ceases to be expressed in activated B-lymphocytes. It may function as a regulatory antigen receptor. IgD is the major antigen receptor isotype co-expressed with IgM on the surface of most peripheral B cells in mice and humans.

The IgD antibody reacts with surface immunoglobulin IgD delta chains. This antibody is useful when identifying Leukemias, Plasmacytomas, and B-cell lineage derived from Lymphomas, specifically Marginal Zone Lymphoma. Renal involvement in systemic lupus erythematosus (SLE) is associated with production of antibodies to double stranded DNA, deposition of immune complexes and organ damage. Lupus nephritis patients were characterized by increased percentage of immature/early-transitional B-cells (CD27-IgD+CD21-), higher frequency of activated switched memory (SM, CD27+IgD-CD21-) and exhausted memory B-cells (CD27-IgD-), and decrease in non-switched memory (NSM, CD27+IgD+) B-cells.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/igd-antibody-elisa/59433>