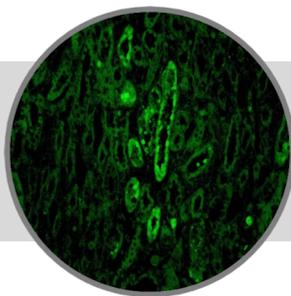


C1q / FITC, RPA



RUO

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Intended Use

For Research Use Only.

Immunogen

KLH conjugated synthetic peptide corresponding to the C-terminus region of human C1QA.

Summary and Explanation

The complement component 1q (C1q) is a protein complex involved in the complement system, which is part of the innate immune system. C1q together with C1r and C1s form the C1 complex. Antibodies of the adaptive immune system can bind antigen, forming an antigen-antibody complex. When C1q binds antigen-antibody complexes, the C1 complex becomes activated. Activation of the C1 complex initiates the classical complement pathway of the complement system.

C1q nephropathy is a rare glomerular disease with characteristic mesangial C1q deposition noted on IHC or IF microscopy. It is histologically defined and poorly understood. Light microscopic features are heterogeneous and comprise minimal change disease (MCD), focal segmental glomerulosclerosis (FSGS), and proliferative glomerulonephritis. Clinical presentation is also diverse, and ranges from asymptomatic hematuria or proteinuria to frank nephritic or nephrotic syndrome in both children and adults. Hypertension and renal insufficiency at the time of diagnosis are common findings. Lupus nephritis is an inflammation of the kidneys caused by Systemic Lupus Erythematosus. Immunofluorescence reveals positively for IgG, IgA, IgM, C3, and C1q.

Antibody Type	Rabbit Polyclonal	Clone	Polyclonal
Isotype	IgG	Reactivity	Paraffin, Frozen
Localization	Cytoplasmic, Membranous	Control	Kidney, Cervix, Spleen, Lupus Erythematosus
Species Reactivity		Human	

Precautions

1. For professional users only. Results should be interpreted by a qualified medical professional.
2. This product contains <0.1% sodium azide (NaN₃) as a preservative. Ensure proper handling procedures are used with this reagent.
3. Always wear personal protective equipment such as laboratory coat, goggles and gloves when handling reagents.
4. Dispose of unused solution with copious amount of water.
5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately.
6. Avoid contact with eyes. If contact occurs, flush with large quantities of water.
7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar).
8. For additional safety information refer to Safety Data Sheet for this product.
9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories" (see References in this document).

Presentation

The C1q/FITC is a purified rabbit polyclonal antibody labeled with FITC diluted in a Tris Buffered Saline solution (pH 7.2) containing stabilizing proteins and preserved with sodium azide. It is provided in liquid form.

Catalog No.	Antibody Type	Dilution	Volume/Qty
BSB-3001-3	Tinto Predilute	Ready-to-Use	3.0 mL
BSB-3001-7	Tinto Predilute	Ready-to-Use	7.0 mL
BSB-3001-15	Tinto Predilute	Ready-to-Use	15.0 mL
BSB-3001-05	Concentrate	1:25 - 1:100	0.5 mL
BSB-3001-1	Concentrate	1:25 - 1:100	1.0 mL

Control Slides Available

Catalog No.	Quantity
BSB-3001-CS	5 slides

Storage Store at 2-8°C in the dark

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.

Preparation of Working Solution

This FITC antibody is supplied as a concentrated solution and should be further diluted to a working concentration with appropriate antibody diluent. ImmunoDetector Protein Block/Antibody Diluent (BSB 0040 and BSB 0041) is suggested immediately prior to use.

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 Bio SB ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033). See reverse side for complete protocol. Tissue should remain hydrated via use of Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).

Frozen sections and cell preparations: The antibody can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations.

Preparation for Frozen Tissues Staining Procedure

1. Embed the specimen in OCT inside cryostat.
2. Cut sections at 5 microns.
3. Place the section on a positively charged glass slide.
4. Air dry for 30-60 minutes.
5. Fix in acetone 100% for 10 minutes.
6. Air dry for another 10 minutes.

Preparation for FFPE Tissues Staining Procedure

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028).
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 (BSB 0020-BSB 0023) or EDTA (BSB 0030-BSB 0033).
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 IF staining protocol.

Abbreviated Protocol FITC Detection

Step	Incubation Time
Rinse slides in IF wash buffer	5 min
Drain and wipe excess IF wash buffer off slide	
Conduct remaining steps in the dark	
Apply Antibody	30-60 min.
Rinse with 3 changes of IF wash buffer	3x5 min. each
Coverslip with IF mounting medium	

Mounting Protocols

IF:

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 °C in the dark.

Product Limitations

Due to inherent variability present in immunofluorescent procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a qualified medical professional.

References

1. Sellar GC, et al. (March 1991). "Characterization and organization of the genes encoding the A-, B- and C-chains of human complement subcomponent C1q. The complete derived amino acid sequence of human C1q". *Biochem. J.* 1991; 274 (2): 481-90.
2. Markowitz, G. S. et al. C1q nephropathy: a variant of focal segmental glomerulosclerosis. *Kidney International*, 2003; 64, 232-1240.
3. Devasahayam, J. et al., C1q Nephropathy: The Unique Underrecognized Pathology Entity. *Analytical Cellular Pathology*. 2015; <https://www.hindawi.com/journals/acp/2015/490413/>
4. Alenka Vizjak, et al. Pathology, Clinical Presentations, and Outcomes of C1q Nephropathy. *J Am Soc Nephrol*. 2008; 19 (11): 2237-2244.
5. U.S. Department of Health and Human Services: Centers for Disease Control and Prevention. Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories. Supplement / Vol. 61, January 6, 2012.

Symbol Key / Légende des symboles/Erläuterung der Symbole

	Storage Temperature Limites de température Zulässiger Temperaturbereich		Manufacturer Fabricant Hersteller	REF	Catalog Number Référence du catalogue Bestellnummer
	Read Instructions for Use Consulter les instructions d'utilisation Gebrauchsanweisung beachten		Expiration Date Utiliser jusque Verwendbar bis	LOT	Lot Number Code du lot Chargenbezeichnung

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