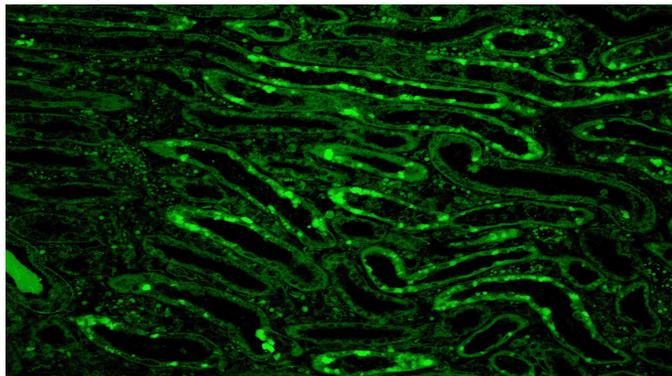


# C4c\FITC

**Clone:** Polyclonal  
Rabbit Polyclonal



*Inset: IF of C4c\FITC on a FFPE Lupus Positive Tissue*

### Intended Use

For In Vitro Diagnostic Use.

This antibody is intended for use in Immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections and cell preparations. Interpretation of results should be performed by a qualified medical professional.

### Immunogen

Recombinant protein corresponding to the human Complement Component 4c protein.

### Summary and Explanation

Complement component 4 (C4), in humans, is a protein involved in the intricate complement system, originating from the human leukocyte antigen(HLA) system. It serves several critical functions in immunity, tolerance, and autoimmunity with the other numerous components.

Low serum complement activity or low protein concentrations of complement C4 are found on Systemic Lupus Erythematosus (SLE) and it is often associated with Congenital C4 deficiency. Complete deficiencies of complement components are among the strongest genetic risk factors for SLE or lupus-like disease, across HLA haplotypes and racial backgrounds.

|                      |   |                           |                  |
|----------------------|---|---------------------------|------------------|
| <b>Antibody Type</b> | Rabbit Polyclonal                               | <b>Clone</b>              | Polyclonal       |
| <b>Isotype</b>       | IgG   | <b>Reactivity</b>         | Paraffin, Frozen |
| <b>Localization</b>  | Cytoplasmic, Membranous                         | <b>Species Reactivity</b> | Human            |
| <b>Control</b>       | Testis, Kidney, Pancreas, Salivary Gland, Colon |                           |                  |
| <b>Application</b>   | Rejection & Autoimmunity                        |                           |                  |

### Presentation

Anti-C4c\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. | Presentation    | Dilution     | Volume  |
|-------------|-----------------|--------------|---------|
| BSB-3003-3  | Tinto Predilute | Ready-to-Use | 3.0 mL  |
| BSB-3003-7  | Tinto Predilute | Ready-to-Use | 7.0 mL  |
| BSB-3003-15 | Tinto Predilute | Ready-to-Use | 15.0 mL |
| BSB-3003-05 | Concentrate     | 1:25-1:100   | 0.5 mL  |
| BSB-3003-1  | Concentrate     | 1:25-1:100   | 1.0 mL  |

### Control Slides Available

| Catalog No. | Quantity |
|-------------|----------|
| BSB-9044-CS | 5 slides |

**Storage** Store at 2-8°C (Control Slides: Store at 20-25°C)

### Precautions

1. For professional users only. Results should be interpreted by a qualified medical professional.
2. This product contains <0.1% sodium azide (NaN<sub>3</sub>) as a preservative. Ensure proper handling procedures are used with this reagent.
3. Always wear personal protective equipment such as a laboratory coat, goggles, and gloves when handling reagents.
4. Dispose of unused solution with copious amounts 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).

### Stability

**This product is stable up to the expiration date on the product label.**

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

### 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), or ImmunoDNA Digester (BSB 0108-0112). 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 on acetone-fixed frozen sections and acetone-fixed cell preparations.

### Preparation for Frozen Tissues IF Procedure

1. Embed the specimen in OCT inside the 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 IF 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. For manual IF, perform antibody incubation at ambient temperature. For automated IF methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with ImmunoDNA washer or DI water.
9. Continue IF protocol. Wash slides between each step with ImmunoDNA washer solution.

### Abbreviated IF Protocol

| Step   | Incubation Time   |
|--|-------------------|
| Rinse slides in IF wash buffer                 | 5 minutes         |
| Drain and wipe excess IF wash buffer off slide |                   |
| Conduct remaining steps in the dark            |                   |
| Apply Antibody                                 | 30-60 minutes     |
| Rinse with 3 changes of IF wash buffer         | 3x15 minutes each |
| Coverslip with IF mounting medium              |                   |

### Mounting IF Protocol

1. Bring FluoroMounter or FluoroMounter with DAPI to room temperature.
2. Rinse slides with distilled or deionized water.
3. Remove excess 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 immunohistochemical 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. Yang Y, et al. Diversity in intrinsic strengths of the human complement system: serum C4 protein concentrations correlate with C4 gene size and polygenic variations, hemolytic activities, and body mass index. *Journal of Immunology*. 2003; 171 (5): 2734-45.
2. Yang Y, et al. The intricate role of complement component C4 in human systemic lupus erythematosus. *Curr Dir Autoimmun*. 2004; 7:98-132.
3. 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

|   |  |   |  |   |
|---|--|---|--|---|
|  | QAdvis EAR AB<br>Ideon Science Park<br>Scheelevägen 17<br>SE-223 70 Lund, Sweden                         |  Storage Temperature<br>Limites de température<br>Zulässiger Temperaturbereich                           |  Manufacturer<br>Fabricant<br>Hersteller             |  Catalog Number<br>Référence du catalogue<br>Bestellnummer |
|  | In Vitro Diagnostic Medical Device<br>Dispositif médical de diagnostic in vitro<br>In-Vitro-Diagnostikum |  Read Instructions for Use<br>Consulter les instructions<br>d'utilisation<br>Gebrauchsanweisung beachten |  Expiration Date<br>Utiliser jusque<br>Verwendbar bis |  Lot Number<br>Code du lot<br>Chargenbezeichnung           |