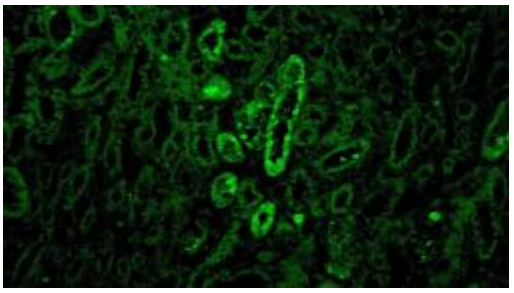
C1q / FITC

Catalog No.	Format	Dilution	Volume
G-3001-3	Prediluted	Ready-to-use	3.0 ml
G-3001-7	Prediluted	Ready-to-use	7.0 ml
G-3001-15	Prediluted	Ready-to-use	15.0 ml
G-3001-05	Concentrated	1:25–1:100	0.5 ml
G-3001-1	Concentrated	1:25–1:100	1.0 ml



Inset: IF of C1q on a FFPE Lupus Erythematosus Tissue

Product Specifications

- **Antibody Type**: Rabbit Polyclonal
- **Isotype**: IgG
- **Species Reactivity**: Human
- **Localization**: Cytoplasmic, Membranous
- **Immunogen**: KLH conjugated synthetic peptide corresponding to the C-terminus region of human C1QA.
- **Source**: Rabbit

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.

Intended Use:

For Research Use Only (RUO) - This antibody enables fluorescent microscopy-based detection of C1q in FFPE tissue. Interpretation should be performed by a pathologist in conjunction with other clinical and histological information.

All test result interpretations must be performed by a qualified medical professional.

Scientific Background:
A protein complex called complement component 1q (C1q) is a component of the innate immune system's complement system. The C1 complex is made up of C1q, C1r, and C1s. Adaptive immune system antibodies have the ability to bind antigen and create an antigen-antibody complex. The

C1 complex is activated when C1q interacts to antigen antibody complexes. The complement system's classical complement pathway is started when the C1 complex is activated.
A rare glomerular illness known as C1q nephropathy is characterised by mesangial C1q deposits that can be seen on IHC or IF microscopy. It is poorly understood and has a histology definition. Minimal change disease (MCD), focal segmental glomerulosclerosis (FSGS), and proliferative glomerulonephritis are among the diverse light microscopic characteristics. In both infants and adults, the clinical presentation is also varied, ranging from frank nephritic or nephrotic syndrome to asymptomatic haematuria or proteinuria. Common findings during diagnosis include renal insufficiency and hypertension. Systemic Lupus Erythematosus is the cause of lupus nephritis, an inflammation of the kidneys. Immunofluorescence shows positive results for the antibodies C3, C1q, IgG, IgA, and IgM.

Product Overview:
This antibody is designed for immunofluorescence (IF) applications to detect C1q proteins in formalin-fixed, paraffin-embedded (FFPE) human tissue. It is suitable for identifying normal or abnormal expression patterns in tissues. Use is restricted to trained laboratory professionals.

Required Materials (Not Included)

- Control tissues (positive/negative)
- Positively charged slides
- Deparaffinization and staining solutions (e.g., xylene, ethanol)
- Heating equipment (e.g., Genebio Solution Digital Antigen Retrieval)
- Epitope retrieval solutions (Citrate or EDTA)
- Mounting media (e.g., Mounting, with or without DAPI)
- Fluorescence microscope with FITC filter

Storage Instructions: Antibody: 2–8°C; Avoid temperature fluctuations and prolonged room temperature exposure.

IF Protocol for FFPE Tissue

1. Slice and place tissues encased in paraffin that have been formalin-fixed at a thickness of 3–5 microns on positively charged slides, like Genebio Hydrophilic Plus Slides.
2. Let it air dry at 58° C for two hours.
3. Rehydrate, dehydrate, and deparaffinize tissues.
4. Use an appropriate retrieval solution, such as ImmunoDNA Retriever with Citrate or EDTA, to subject tissues to heat-induced epitope retrieval (HIER).
5. Warm up mounting soution with DAPI until it reaches room temperature.
6. Use deionised or distilled water to rinse slides.
7. Before placing slides flat in the dark, drain any extra water.
8. Before opening the dropper bottle, flip the media bottle upside down.
9. Make sure the specimen is coated by applying one to three drops of mounting soution to each slide.

10. Incubate in the dark for three to five minutes at room temperature. Coverslip.
11. Use the proper filters to view under a fluorescence microscope.
12. It is advised that the slides be kept in the dark and between 2 and 8 °C.

Note: Prediluted antibody is ready to use. Concentrated forms require user-defined dilution.

Controls and Quality Assurance

- Positive Controls: Kidney, Cervix, Spleen, Lupus Erythematosus
- Negative Controls: Internal negative areas within tissue or control reagents without primary antibody

All testing should include both positive and negative controls to confirm reagent functionality and staining specificity.

Precautions

- For trained professionals only.
- Contains <0.1% sodium azide—handle with appropriate safety precautions.
- Always wear PPE.
- Refer to the Safety Data Sheet and CDC guidelines for biological specimen handling.

Limitations

Due to variable conditions in IHC protocols (e.g., tissue fixation, antibody dilution), each lab should optimize their method using control samples. Only qualified professionals should evaluate results.