

C4d (SP91)

Format	Catalog No.	Pack size	Dilution
Concentrated	G183311 A, B, C	0.1, 0.5, 1.0 mL	1:100 - 200
Prediluted	G183311 AA, BB	6.0, 3.0 mL	Ready to use

ANTIBODY SPECIFICATIONS

- **HOST SPECIES:** Rabbit
- **CLONE:** SP91
- **ISOTYPE:** IgG
- **CELLULAR LOCALIZATION:** Cytoplasmic, Membranous
- **IMMUNOGEN:** A synthetic peptide corresponding to the C-terminus of the human C4d protein
- **MOLECULAR WEIGHT:** ~45 kDa
- **SPECIES REACTIVITY:** Human; Others not known.
- **POSITIVE CONTROLS:** Lymph node, Tonsil, Acute rejected kidney transplant

INTENDED USE

This antibody is intended **for research use only (RUO)** and is not approved for diagnostic or therapeutic applications. It is optimized for the detection of C4d protein in formalin-fixed, paraffin-embedded (FFPE) human tissues by immunohistochemistry (IHC).

SUMMARY AND APPLICATION

Antibodies against the donor endothelium trigger the classical complement cascade, which in turn causes acute humoral rejection. This results in several complement protein split products. When the antigen antibody complex activates the conventional complement pathway, a portion of C4 complement known as C4d is released.

SCIENTIFIC BACKGROUND

C4d is thought to be an indirect indicator of an antibody response and accumulates in peritubular capillaries. One helpful indicator of acute renal allograft rejection is C4d.

RECOMMENDED USAGE

- **IHC Protocol Highlights:**
 - Dilution: 1–2 µg/mL
 - Incubation: 30 minutes at room temperature
 - Antigen Retrieval: Heat in 10 mM Tris with 1 mM EDTA (pH 9.0) at 95°C for 45 minutes, followed by cooling
- **Specimen Type:** FFPE sections, preferably ~4 µm

FORMULATION & STORAGE:

- Buffer: 10 mM PBS, 0.05% BSA, 0.05% sodium azide
- Storage:

- o Dilution: 1–2 µg/MI
 - o Without azide: –20 to –80°C
- Shelf Life: 24 months under proper conditions
- Hazard Classification: Non-hazardous; no MSDS required

LIMITATIONS

- Interpretation must be made by a qualified pathologist
- Tissue fixation and handling may affect staining quality
- Negative results do not always indicate absence of antigen—consider panel testing

PRECAUTIONS

- Contains 0.05% sodium azide – avoid ingestion and contact with skin or mucosa
- Wear gloves and avoid contact with eyes or mucosa
- Do not use reagents past expiration or if packaging appears compromised
- Do not pipette by mouth or reuse slides/containers without proper sterilization

TECHNICAL SUPPORT

For technical assistance, please contact Genebio Solution's Technical Support at www.genebiosolution.com