

### 36-1768: Monoclonal Antibody to Complement 4d (C4d) (Acute Humoral Rejection Marker)(Clone : SPM545)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	SPM545
<b>Application :</b>	IF,IHC
<b>Reactivity :</b>	Human
<b>Gene :</b>	C4A
<b>Gene ID :</b>	720
<b>Uniprot ID :</b>	P0C0L4
<b>Format :</b>	Purified
<b>Alternative Name :</b>	C4A,CO4,CPAMD2
<b>Isotype :</b>	Mouse IgG1, kappa
<b>Immunogen Information :</b>	Recombinant human Complement 4d protein

#### Description

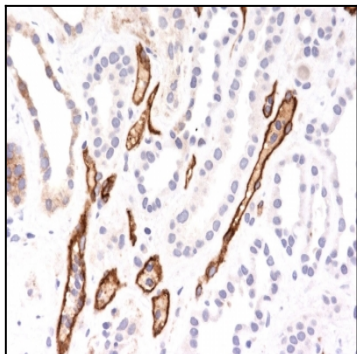
This MAb is specific to Complement 4d (C4d) and it reacts with the secreted as well as cell-bound C4d. C4d is a degradation product of the activated complement factor C4b. Complement 4b is typically activated by binding of Abs to specific target molecules. Following activation and degradation of the C4 molecule, thio-ester groups are exposed, which allow transient, covalent binding of the degradation product Complement 4d to endothelial cell surfaces and extracellular matrix components of vascular basement membranes near the sites of C4 activation. The presence of C4d in peritubular capillaries is a key indicator for acute humoral (i.e. antibody-mediated) rejection of kidney, heart, pancreas and lung allografts. As an established marker of antibody-mediated acute renal allograft rejection and its proclivity for endothelium, this component can be detected in peritubular capillaries in chronic renal allograft rejection as well as hyperacute rejection, acute vascular rejection, acute cellular rejection, and borderline rejection. It has been shown to be a significant predictor of transplant kidney graft survival. Anti-C4d, combined with anti-C3d, can be utilized as a tool for diagnosis of allograft rejection that may warrant a prompt and aggressive anti-rejection treatment.

#### Product Info

<b>Amount :</b>	100 µg
<b>Purification :</b>	Affinity Chromatography
<b>Content :</b>	100 µg in 500 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic.
<b>Storage condition :</b>	Store the antibody at 4°C; stable for 6 months. For long-term storage; store at -20°C. Avoid repeated freeze and thaw cycles.

#### Application Note

Immunofluorescence (1:50-1:100); Immunohistochemistry (Formalin-fixed) (1:200-1:400 for 30 minutes at RT)(Staining of formalin-fixed tissues requires heating tissue sections in 1mM EDTA, pH 7.5-8.5, for 45 min at 95°C followed by cooling at RT for 20 minutes)



Formalin-fixed, paraffin-embedded human Kidney Transplant stained with Complement 4d Monoclonal Antibody (SPM545).