

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Complement Component C5/C5a in ELISAs and Western blots. In sandwich immunoassays, detects human Complement Component C5a by itself or in the context of Complement Component C5. In Western blots, this antibody does not cross-react with recom
Source	Monoclonal Mouse IgG ₁ Clone # 295003
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Complement Component C5a Thr678-Arg751 Accession # P01031
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Human complement component C5a (C5a) is an enzymatically generated glycoprotein that belongs to a family of structurally and functionally related proteins known as anaphylatoxins. C5a is a 74 amino acid (aa) peptide that is created by the activity of C5a convertase on the C5 α-chain (1, 2). Human C5a has four α-helices plus three intrachain disulfide bonds that create a triple loop structure (3). In serum, proteolytic processing removes the C-terminal arginine, creating a low activity C5a desArg74 molecule (1). Human C5a is 60% and 54% aa identical to mouse and rat C5a, respectively. C5a binds to a signaling G-protein coupled receptor (C5aR/CD88) and a non-signaling GPCR termed C5L2 (4). Activation of Cd88 results in neutrophil chemotaxis and endothelial cell activation (1, 5). It also triggers an oxidative burst in macrophages and neutrophils, and induces release of histamine in basophils and mast cells.

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