

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                     |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Complement Component C5/C5a in direct ELISAs.                                               |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>1</sub> Clone # 295009                                                          |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                                                |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human Complement Component C5a<br>Thr678-Arg751<br>Accession # P01031 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                           |
| <b>Formulation</b>                                                                                                                                                                                      | 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** 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.

#### PRODUCT SPECIFIC NOTICES

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