



Recombinant Protein Technical Manual

Recombinant Human Complement C5a Protein

RPES4028

Product Data:

Product SKU: RPES4028

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P01031

Protein Information:

Molecular Mass: 8.4 kDa

AP Molecular Mass: 12 kDa

Tag:

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Complement C5; C5a anaphylatoxin; C5a;CPAMD4;ECLZB;C5Da

Immunogen Information:

Sequence: Thr678-Arg751

Background:

Human Complement 5a (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. Human C5a has four α -helices plus three intrachain disulfide bonds that create a triple loop structure. 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. Activation of Cd88 results in neutrophil chemotaxis and endothelial cell activation. It also triggers an oxidative burst in macrophages and neutrophils, and induces release of histamine in basophils and mast cells.