



Recombinant Protein Technical Manual

Recombinant Mouse Complement Component C5/C5 Protein RPES0164

Product Data:

Product SKU: RPES0164

Size: 10µg

Species: Mouse

Expression host: E. coli

Uniprot: P06684

Protein Information:

Molecular Mass: 9.0 kDa

AP Molecular Mass: 12 kDa

Tag:

Bio-activity:

Purity: > 95 % as determined by SDS-PAGE

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

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°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 20mM PB, 350mM NaCl, pH 7.5.

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

Application:

Synonyms: Complement C5; Hemolytic Complement; C5; Hc

Immunogen Information:

Sequence: Asn679-Arg755

Background:

Mouse Complement C5 (C5a) is a glycoprotein that belongs to a family of structurally and functionally related proteins known as anaphylatoxins. C5a is a 77 amino acid peptide that is created by the C5a convertase proteolytic cleavage of C5 α chain in the classical and alternative complement pathway (C4b2a3b, C3bBb3b). Mouse C5a has four α helices, plus three intra-chain disulfide bonds that form a triple loop structure. C5a functions via G-protein coupled receptor (GPCR) (C5aR/CD88). C5a is a potent chemoattractant and anaphylatoxin that acts on all classes of leukocytes and on many other cell types including endothelial, smooth muscle, kidney, liver, and neural cells. It mediates IL-8 release from bronchial epithelial cells. It also triggers an oxidative burst in macrophages and neutrophils, causing release of histamine in basophils and mast cells. C5a anaphylatoxin activity on hepatocytes results indirectly from interaction with nonparenchymal cell via prostanoid secretion. Mouse C5a shares 60% and 82% sequence identity to human and rat C5a, respectively.