

Recombinant Mouse Complement Component C5/C5 Protein

Catalog No. PKSM040990

Note: Centrifuge before opening to ensure complete recovery of vial contents.

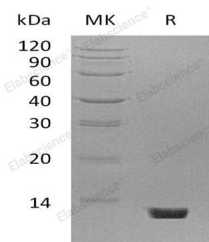
Description

Synonyms	Complement C5; Hemolytic Complement; C5; Hc
Species	Mouse
Expression Host	E.coli
Sequence	Asn679-Arg755
Accession	P06684
Calculated Molecular Weight	9.0 kDa
Observed molecular weight	12 kDa
Tag	None
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, 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. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

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

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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.