

Active Recombinant Human C5 Protein, His&Avi tagged, Biotinylated

Cat. No. C5-11193H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Human Complement C5, His, Avi tag is expressed from human 293 cells (HEK293). It contains AA Gln 19-Arg 677 & Thr 678-Cys 1676 (Accession # P01031-1). This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag. Predicted N-terminus: Gln 19 (β chain) & Thr 678 (α chain)
Species	Human
Source	HEK293
ProteinLength	19-677 aa & 678-1676 aa
Conjugation/Label	Biotin
Description	Derived from proteolytic degradation of complement C5, C5 anaphylatoxin is a mediator of local inflammatory process. C5 precursor is first processed by the removal of 4 basic residues, forming two chains, beta and alpha, linked by a disulfide bond. C5 convertase activates C5 by cleaving the alpha chain, releasing C5a anaphylatoxin and generating C5b (beta chain + alpha' chain). Activation of C5 by a C5 convertase initiates the spontaneous assembly of the late complement components, C5-C9, into the membrane attack complex. C5b has a transient binding site for C6. The C5b-C6 complex is the foundation upon which the lytic complex is assembled. The C5a anaphylatoxin interacts with C5AR1 and tick complement inhibitor. C5a is also a potent chemokine which stimulates the locomotion of

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	polymorphonuclear leukocytes and directs their migration toward sites of inflammation.
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.
Specificity	Protein Ratio: Passed as determined by the HABA assay/binding ELISA.
Bio-activity	Immobilized Biotinylated Human Complement C5, His, Avi tag at 1 µg/mL (100 µL/well) on streptavidin precoated (0.5 µg/well) plate can bind Monoclonal Anti-Human C5a Human Antibody, Human IgG1 with a linear range of 0.1-3 ng/mL.
Molecular Mass	The mature form of Complement C5 is a disulfide-linked heterodimer composed of proteolytically cleaved α and β chain. Each α and β chain has a calculated MW of 73.9 kDa (β chain) and 116.1 kDa (α chain). The protein migrates as 75 kDa, 120 kDa and 200 kDa under reducing (R) condition, and 200 kDa under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.
Purity	>95% as determined by SDS-PAGE. >90% as determined by SEC-MALS.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

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Gene Name	C5 complement component 5 [Homo sapiens (human)]
Official Symbol	C5
Synonyms	C5; complement component 5; complement C5; CPAMD4; anaphylatoxin C5a analog; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4; FLJ17816; FLJ17822; MGC142298;
Gene ID	727
mRNA Refseq	NM_001735
Protein Refseq	NP_001726
MIM	120900
UniProt ID	P01031

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