

Recombinant Rabbit Complement C5 Protein, His-tagged

Cat. No. C5-11058R **Lot. No.** (See product label)

SPECIFICATION

Product Overview Rabbit Complement C5, His Tag is expressed from human 293 cells (HEK293). It contains AA Gln 19 - Arg 677 & Met 678 - Ala 1678 (Accession # XP_008271599.1). This protein carries a polyhistidine tag at the C-terminus. Predicted N-terminus: Gln 19 (β chain) & Met 678 (α chain)

Species Rabbit

Source HEK293

ProteinLength 19-677 aa & 678-1678 aa

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 polymorphonuclear leukocytes and directs their migration toward sites of inflammation.

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Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.
Molecular Mass	The mature form of Complement C5 is a disulfide-linked heterodimer composed of proteolytically cleaved α and β chain. During cultivation, Complement C5 will be partially processed into α and β chain and has a calculated MW of 73.8 kDa (β chain) and 111.9 kDa (α chain) respectively. The protein migrates as 80 kDa, 120 kDa and 200 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU/µg by the LAL method/rFC method.
Purity	>90% as determined by SDS-PAGE.
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

Gene Name	C5 complement C5 [<i>Oryctolagus cuniculus</i> (rabbit)]
Official Symbol	C5
Synonyms	C5; complement C5

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Gene ID	103352022
mRNA Refseq	XM_008273377
Protein Refseq	XP_008271599
UniProt ID	G1SPF9

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