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Recombinant Human Complement C5A Protein

Catalog No.: RP01128 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	727	P01031

Tags
No tag

Synonyms
C5;C5D;C5a;C5b;CPAMD4;ECLZB

Product Information

Source	Purification
E. coli	> 94 % by SDS-PAGE.

Endotoxin
Please contact us for more information.

Formulation
Lyophilized from a 0.22 μm filtered solution PBS, pH 7.4.Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

This protein is a component of the complement system, a part of the innate immune system that plays an important role in inflammation, host homeostasis, and host defense against pathogens. The encoded preproprotein is proteolytically processed to generate multiple protein products, including the C5 alpha chain, C5 beta chain, C5a anaphylatoxin and C5b. The C5 protein is comprised of the C5 alpha and beta chains, which are linked by a disulfide bridge. Cleavage of the alpha chain by a convertase enzyme results in the formation of the C5a anaphylatoxin, which possesses potent spasmogenic and chemotactic activity, and the C5b macromolecular cleavage product, a subunit of the membrane attack complex (MAC). Mutations in this gene cause complement component 5 deficiency, a disease characterized by recurrent bacterial infections. Alternative splicing results in multiple transcript variants.

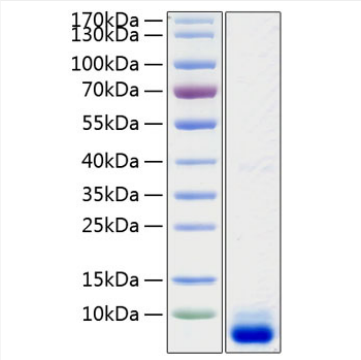
Basic Information

Description
Recombinant Human Complement C5 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Leu679-Arg751) of human C5a (Accession #NP_001726.2).

Bio-Activity
Measured by its ability to induce N-acetyl-β-D-glucosaminidase release from differentiated U937 human histiocytic lymphoma cells. The ED_{50} for this effect is typically 5-15 ng/mL.

Storage
Store the lyophilized protein at -20°C to -80 °C for long term.
After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.
Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Complement C5 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 8.3 kDa.