Recombinant Human Complement C5A Protein

Catalog No.: RP01128

Sequence Information

Species
Human

Gene ID
727

Swiss Prot
P01031

Tags
NO-Tag

Synonyms
C5, CPAMD4,Complement C5, C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4, Cleaved into: Complement C5 beta chain, Complement C5 alpha chain, C5a anaphylatoxin, Complement C5 alpha' chain

Product Information

Source
E. coli

Purification
≥ 90 % as determined by SDS-PAGE.

Calculated MW
8.17 kDa

Observed MW
10-15 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex 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.

Background

Human Complement 5a (C5a) is an enzymatically generated glycoprotein that belongs to a family of structurally and functionally related proteins known as anaphylatoxins. Human C5a has four alpha -helices plus three intrachain disulfide bonds that create a triple loop structure . In serum, proteolytic processing removes the C-terminal arginine, creating a low activity C5adesArg74 molecule . Human C5a is 60% and 54% aa identical to mouse and rat C5a, respectively. C5a binds to a signaling G-protein coupled receptor (C5aR/CD88) and a nonsignaling GPCR termed C5L2 . Activation of Cd88 results in neutrophil chemotaxis and endothelial cell activation . It also triggers an oxidative burst in macrophages and neutrophils, and induces release of histamine in basophils and mast cells.

Basic Information

Description
Recombinant Human Complement C5A Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Thr678-Arg751) of Human Complement C5A (Accession #NP_001726.2) fused with no tag.

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.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

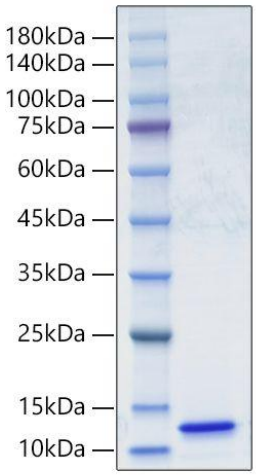
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

Validation Data



Recombinant Human Complement C5A Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.