

## Recombinant Human Complement Component C5a

### Information

<b>Gene ID</b>	
<b>Accession #</b>	
<b>Alternate Names</b>	
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 8.3 kDa, a single non-glycosylated polypeptide chain containing 74 amino acids.
<b>AA Sequence</b>	TLQKKIEEIA AKYKHSVVKK CCYDGACVNN DETCEQRAAR ISLGPRCIKA FTECCVASQ LRANISHKDM QLGR
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile PBS to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The biological activity determined by its ability to chemoattract human monocytes using a concentration range of 1.0-10.0 ng/ml.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	5µg	100µg	500µg
Recombinant Human Complement Component C5a	5µg	100µg	500µg

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- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

## Quality Control

Purity	> 98 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuC5a as determined by LAL method.

## Description

Complement C5, also named C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4, is involved in the complement system and it is encoded by the C5 gene in human. Complement C5 is cleaved into C5a and C5b. C5a plays an important role in chemotaxis and C5b forms the first part of the complement membrane attack complex. Complement C5 is the fifth component of complement, which plays an important role in inflammatory and cell killing processes. This protein is composed of alpha and beta polypeptide chains that are linked by a disulfide bridge. An activation peptide, C5a, which is an anaphylatoxin that possesses potent spasmogenic and chemotactic activity, is derived from the alpha polypeptide via cleavage with a convertase. The C5b macromolecular cleavage product can form a complex with the C6 complement component, and this complex is the basis for formation of the membrane attack complex, which includes additional complement components.

## Reference

**APExBIO Technology**

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