

## 32-13065: C5a Human

**Application :** Functional Assay

**Alternative Name :** Complement Component 5, C3 and PZP-Like Alpha-2-Macroglobulin Domain-Containing Protein 4, C5a Anaphylatoxin, Prepro-C5, CPAMD4, Anaphylatoxin C5a Analog, ECLZB, C5A, C5D, C5b, C5.

### Description

Source: Escherichia Coli.

Sterile Filtered White lyophilized (freeze-dried) powder.

Complement Component C5a (C5a) 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 has an imperative role in chemotaxis and C5b forms the 1st part of the complement membrane attack complex. Complement C5 is the 5th component of complement, which plays a central role in inflammatory and cell killing processes. C5a protein is composed of alpha and beta polypeptide chains, which are linked by a disulfide bridge. An activation peptide, C5a, which is an anaphylatoxin, which has potent spasmogenic and chemotactic activity, is derivative from the alpha polypeptide via cleavage with a convertase. The C5b macromolecular cleavage product forms a complex with the C6 complement component, and this complex is the basis for creation of the membrane attack complex, which includes supplementary complement components.

C5a Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 74 amino acids and having a molecular mass of 8.3kDa. The Human C5a is purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 5 µg / 20 µg

**Purification :** Greater than 98.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

**Content :** Human C5a was lyophilized from a concentrated (1mg/ml) solution in PBS, pH 7.4. It is recommended to reconstitute the lyophilized C5a Human in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**Storage condition :** Lyophilized Human C5a although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Human C5a should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

**Amino Acid :** TLQKKIEEIA AKYKHSVVKK CCYDGACVNN DETCEQRAAR ISLGPRCIKA FTECCVVASQ LRANISHKDM QLGR.

### Application Note

The biological activity determined by its ability to chemoattract human monocytes using a concentration range of 1.0-10.0 ng/ml.