

Recombinant Human C5, His-tagged

Cat. No. C5-26313TH Lot. No. (See product label)

SPECIFICATION

Product Overview The 74 amino acid, human C5 protein expressed in E. coli with a 6 amino acid, N-terminal His-Tag sequence and 28 amino acid proprietary vector sequence necessary for expression. The recombinant protein is not further processed to remove the additional sequence.

Species Human

Source E.coli

Description The protein encoded by this gene is the fifth component of complement, which plays an important role in inflammatory and cell killing processes. This protein is comprised 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. Mutations in this gene cause complement component 5 deficiency, a disease where patients show a propensity for severe recurrent infections. Defects in this gene have also been linked to a susceptibility to liver fibrosis and to rheumatoid arthritis.

Form Lyophilized protein. Lyophilized with no additives.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



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|-----------------------|---|
| Endotoxin | <0.1 ng/μg |
| Purity | ≥95% as determined by SDS-PAGE. |
| Storage | Store at -20°C or -70°C as supplied. Stable for at least 1 year. After reconstitution, store at -70°C. |
| Reconstitution | Centrifuge the vial prior to opening. Reconstitute to a concentration of 1.0 mg/ml in ice-cold water containing 2.5 mg/ml BSA. The solution should be aliquoted and immediately stored at -70°C for future use. Frozen/thaw will result in some loss of activity. |

GENE INFORMATION

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|------------------------|--|
| Gene Name | C5 complement component 5 [Homo sapiens (human)] |
| Official Symbol | C5 |
| Synonyms | C5; C5a; C5b; CPAMD4; complement component 5; complement C5; prepro-C5; C5a anaphylatoxin; anaphylatoxin C5a analog; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4 |
| Gene ID | 727 |
| mRNA Refseq | NM_001735 |
| Protein Refseq | NP_001726 |
| MIM | 120900 |
| UniProt ID | P01031 |

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|----------------------------|---|
| Chromosome Location | 9q33-q34 |
| Pathway | Activation of C3 and C5; Complement Activation, Classical Pathway; Herpes simplex infection |
| Function | C5a anaphylatoxin chemotactic receptor binding; endopeptidase inhibitor activity; protein binding |

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