

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.

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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

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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