

## Active Native Human C5

**Cat. No.** C5-10540H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <b>Product Overview</b> | Native Human C5 was purified from human serum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | Human Serum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>      | <p>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.</p> |
| <b>Bio-activity</b>     | >100,000 C5H50 units/ mg protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>           | ≥90% (SDS-PAGE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Applications</b>     | Complement C5 is part of the terminal sequence in the complement pathway. In particular, it is cleaved into C5a and C5b which are responsible for chemotaxis,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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inflammation, and initiating the formation of the membrane attack complex (MAC). Drugs that inhibit complement C5 have been used in Paroxysmal nocturnal hemoglobinuria (PNH) patients to lessen thrombotic complications by lessening intravascular hemolysis.

**Stability**

The product ships on dry ice and storage at –70 °C is recommended. Repeated freezing and thawing is not recommended.

**Shipping**

dry ice

## GENE INFORMATION

**Gene Name**

[C5 complement component 5 \[ Homo sapiens \]](#)

**Official Symbol**

C5

**Synonyms**

C5; complement component 5; complement C5; CPAMD4; anaphylatoxin C5a analog; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4; FLJ17816; FLJ17822; MGC142298;

**Gene ID**

[727](#)

**mRNA Refseq**

[NM\\_001735](#)

**Protein Refseq**

[NP\\_001726](#)

**MIM**

[120900](#)

**UniProt ID**

[P01031](#)

**Chromosome**

9q33-q34

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| Location |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pathway  | Activation of C3 and C5, organism-specific biosystem; Class A/1 (Rhodopsin-like receptors), organism-specific biosystem; Complement Activation, Classical Pathway, organism-specific biosystem; Complement and coagulation cascades, organism-specific biosystem; Complement and coagulation cascades, conserved biosystem; Complement cascade, organism-specific biosystem; G alpha (i) signalling events, organism-specific biosystem; |
| Function | C5a anaphylatoxin chemotactic receptor binding; chemokine activity; endopeptidase inhibitor activity; receptor binding;                                                                                                                                                                                                                                                                                                                  |

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