

# Human C7 / Complement component 7 Protein (His Tag)

Catalog Number: 13848-H08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

Complement C7

### Protein Construction:

A DNA sequence encoding the human C7 (P10643) (Met1-Gln843) with a C-terminal polyhistidine tag was expressed.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** ≥ 88 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Ser 23

### Molecular Mass:

The recombinant human C7 comprises 832 amino acids and has a predicted molecular mass of 92.6 kDa. The apparent molecular mass of the protein is approximately 92-98 kDa in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

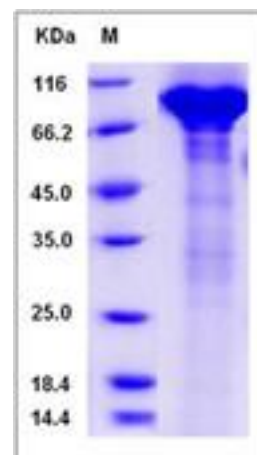
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Complement component 7 is a component of the complement system. It belongs to the complement C6/C7/C8/C9 family. It contains 1 EGF-like domain, 1 LDL-receptor class A domain, 1 MACPF domain, 2 Sushi (CCP/SCR) domains and 2 TSP type-1 domains. Complement component 7 serves as a membrane anchor. It participates in the formation of Membrane Attack Complex (MAC). People with C7 deficiency are prone to bacterial infection. It is a constituent of MAC that plays a key role in the innate and adaptive immune response by forming pores in the plasma membrane of target cells. Defects in C7 are a cause of complement component 7 deficiency (C7D). A rare defect of the complement classical pathway associated with susceptibility to severe recurrent infections, predominantly by *Neisseria gonorrhoeae* or *Neisseria meningitidis*.

## References

1. Bossi F, *et al.* (2009) C7 is expressed on endothelial cells as a trap for the assembling terminal complement complex and may exert anti-inflammatory function. *Blood*. 113(15):3640-8. 2. Kuijpers TW, *et al.* (2010) Complement factor 7 gene mutations in relation to meningococcal infection and clinical recurrence of meningococcal disease. *Mol Immunol*. 47(4):671-7. 3. Thomas AD, *et al.* (2012) Characterization of a large genomic deletion in four Irish families with C7 deficiency. *Mol Immunol*. 50(1-2):57-9.

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