

## 37-1079: Human C2 / Complement Component 2 Recombinant Protein (His Tag)(Discontinued)

**Reactivity :** Human  
**Alternative Name :** ARMD14 Protein, CO2 Protein,

### Description

#### Source : HEK293 Cells

Complement component C2 is part of the classical complement pathway which plays a major role in innate immunity against infection. C2 is a glycoprotein synthesized in liver hepatocytes and several other cell types in extrahepatic tissues. This pathway is triggered by a multimolecular complex C1, and subsequently the single-chain form of C2 is cleaved into two chains referred to C2a and C2b by activated C1. The second component of complement (C2) is a multi-domain serine protease that provides catalytic activity for the C3 and C5 convertases of the classical and lectin pathways of human complement. C4b and C2 was investigated by surface plasmon resonance. C2a containing a serine protease domain combines with complement component C4b to form the C3 convertase C4bC2a which is responsible for C3 activation, and leads to the stimulation of adaptive immune responses via Lectin pathway. C2 bound to C4b is cleaved by classical (C1s) or lectin (MASP2) proteases to produce C4bC2a. C2 has the same serine protease domain as C4bC2a but in an inactive zymogen-like conformation, requiring cofactor-induced conformational change for activity. Deficiency of C2 (C2D) is the most common genetic deficiency of the complement system, and two types of C2D have been recognized in the context of specific MHC haplotypes. C2D in human is reported to increase susceptibility to infection, and is associated with certain autoimmune diseases, such as rheumatological disorders.

### Product Info

**Amount :** Human C2 / Complement Component 2 Recombinant Protein (His Tag)(Discontinued) / 20 µg  
**Purification :** > 97 % as determined by SDS-PAGE and SEC-HPLC Analysis.  
**Content :** Formulation Lyophilized from sterile PBS, pH 7.4  
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.  
**Storage condition :** Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.  
**Amino Acid :** Met1-Leu752

### Application Note

Measured by its ability to cleave a colorimetric peptide substrate, N-carbobenzyl-oxy-Gly-Arg-ThioBenzyl ester (Z-GR-SBzl), in the presence of 5,5'-Dithiobis (2-nitrobenzoic acid) (DTNB). The specific activity is >100 pmoles/min/µg.  
Endotoxin :< 1.0 EU per µg of the protein as determined by the LAL method

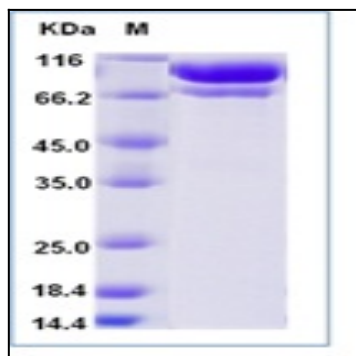


Fig 1: Human C2 / Complement Component 2 Recombinant Protein (His Tag)