**Proteins** 



## **Product** Data Sheet

## C1QA Protein, Mouse (His-SUMO)

Cat. No.: HY-P72108

Synonyms: C1qaComplement C1q subcomponent subunit A

Species: Source: E. coli

P98086 (E23-A245) Accession:

Gene ID: 12259

Molecular Weight: Approximately 39.6 kDa

## **PROPERTIES**

AA Seq	uence
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EDVCRAPNGK DGAPGNPGRP GRPGLKGERG EPGAAGIRTG IRGFKGDPGE SGPPGKPGNV GLPGPSGPLG DSGPQGLKGV KGNPGNIRDQ PRPAFSAIRQ NPMTLGNVVI FDKVLTNQES PYQNHTGRFI CAVPGFYYFN FQVISKWDLC LFIKSSSGGQ PRDSLSFSNT NNKGLFOVLA GGTVLQLRRG DEVWIEKDPA

KGRIYQGTEA DSIFSGFLIF PSA

**Appearance** 

Lyophilized powder

Formulation

Lyophilized from a 0.2 µm solution of 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.

**Endotoxin Level** 

<1 EU/ $\mu$ g, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100  $\mu g/mL$  in ddH<sub>2</sub>O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping** 

Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION**

**Background** 

C1QA protein plays a pivotal role in the formation of C1, the initiating component of the serum complement system. C1q associates with the proenzymes C1r and C1s, resulting in the assembly of C1. The collagen-like regions of C1q engage with the Ca(2+)-dependent C1r(2)C1s(2) proenzyme complex, and efficient activation of C1 occurs upon the interaction of the globular heads of C1q with the Fc regions of IgG or IgM antibodies within immune complexes. Active C1 constitutes a calcium-dependent trimolecular complex composed of C1q, C1r, and C1s in a molar ratio of 1:2:2. The C1q subcomponent consists of nine subunits, with six forming disulfide-linked dimers of the A and B chains, and the remaining three forming disulfide-linked dimers of the C chain. Additionally, C1QA interacts via its C-terminus with CD33, activating CD33 inhibitory motifs.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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