# Rat Serum amyloid P component / APCS / SAP Protein (His Tag)

Catalog Number: 80061-R08H



## **General Information**

#### Gene Name Synonym:

**APCS** 

#### **Protein Construction:**

A DNA sequence encoding the rat APCS (P23680) (Met 1-Ser 228) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

**QC** Testing

Purity: > 95 % as determined by SDS-PAGE

**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  $^{\circ}\mathrm{C}$ 

Predicted N terminal: Gln 21

**Molecular Mass:** 

The recombinant rat APCS comprises 219 amino acids and predicts a molecular mass of 25.3 kDa. The apparent molecular mass of the rat APCS is approximately 30 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:

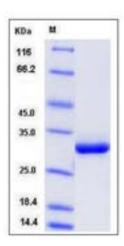
Store it under sterile conditions at -20  $^\circ\!\mathrm{C}$  to -80  $^\circ\!\mathrm{C}$  upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



# **Protein Description**

Serum amyloid P component (SAP) is the identical serum form of amyloid P component (AP), a highly preserved plasma protein named for its ubiquitous presence in amyloid deposits. As a normal plasma protein first identified as the pentagonal constituent of in vivo pathological deposits called "amyloid". Serum amyloid P component represents another member of the pentraxin family, a highly conserved group of molecules that may play a role in innate immunity. SAP is a key negative regulator for innate immune responses to DNA and may be partly responsible for the insufficient immune responses after DNA vaccinations in humans. SAP suppression may be a novel strategy for improving efficacy of human DNA vaccines and requires further clinical investigations.

#### References

1.Wang Y, et al. (2011) Human serum amyloid P functions as a negative regulator of the innate and adaptive immune responses to DNA vaccines. J Immunol. 186(5): 2860-70. 2.Hawkins PN. (2002) Serum amyloid P component scintigraphy for diagnosis and monitoring amyloidosis. Curr Opin Nephrol Hypertens. 11(6): 649-55. 3.Noursadeghi M, et al. (2000) Role of serum amyloid P component in bacterial infection: protection of the host or protection of the pathogen. Proc Natl Acad Sci U S A. 97: 14584-9.

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