Data Sheet (Cat.No.TMPY-00666)

TargetMol

Serum Amyloid P Protein, Mouse, Recombinant (His)

General Information

Synonyms:	amyloid P component, serum;Sap
Protein Construction:	A DNA sequence encoding the mouse APCS (NP_035448.2) (Met 1-Asp 224) precursor was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Gln 21
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P12246
Molecular Weight:	25.3 kDa (predicted); 28 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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.

Reference

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.

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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.

de Haas CJ. (1999) New insights into the role of serum amyloid P component, a novel lipopolysaccharide-binding protein. FEMS Immunol Med Microbiol. 26(3-4): 197-202.