

Recombinant Rhesus Macaque Serum Amyloid A1

Information

Gene ID	694827
Accession #	F6V9N7
Alternate Names	Amyloid fibril protein AA
Source	Escherichia coli.
M.Wt	Approximately 11.7 kDa, a single non-glycosylated polypeptide chain containing 104 amino acids.
AA Sequence	RSWFSFLGEA YDGARDMWRA YSDMKEANYK NSDKYFHARG NYDAAQRGPG GVWAAEVISD ARENIQKLLG RGAEDTLADQ AANEWGRSGK DPNHFRPAGL PEKY
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human monocytes is in a concentration range of 10-100 ng/ml.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10µg	100µg	500µg
Recombinant Rhesus Macaque Serum Amyloid A1	10µg	100µg	500µg

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- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rRhSAA1 as determined by LAL method.

Description

Serum Amyloid A protein-1 belongs to the SAA family of apolipoproteins that circulates in association with high-density lipoproteins (HDL). It is a multifunctional protein produced by hepatocytes in response to pro-inflammatory cytokines. SAA1 is a ligand for CD36/SR-B3, SR-B1, FPRL1, TLR2, and RAGE on monocytes/macrophages, inducing chemotaxis and generation of cytokines and tissue factor. It also can bind the surface of invading gram-negative bacteria, acting as an opsonin to aid clearance by macrophages. Additionally, SAA1 binds platelets, probably by engaging fibrinogen on the platelet surface.

Reference

1. Stevens G, Ramsay M, Kluge-Beckerman B, et al. 1993. Genomics, 15: 242-3
2. Kluge-Beckerman BandSong M. 1995. Gene, 159: 289-90
3. Kluge-Beckerman B, Malle E, Vitt H, et al. 1991. Biochem Biophys Res Commun, 181: 1097-102
4. Milan E, Lazzari C, Anand S, et al. 2012. J Proteomics, 76 Spec No.: 91-101.

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