

Serum Amyloid A1/SAA Monoclonal Antibody(Detector)

catalog number: AN001590P

Note: Centrifuge before opening to ensure complete recovery of vial contents.

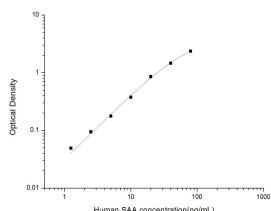
Description

Reactivity	Human
Immunogen	Recombinant Human Serum Amyloid A1/SAA protein expressed by E.coli
Host	Rat
Isotype	Rat IgG2a
Clone	29C11
Purification	Protein A/G Purification
Buffer	Phosphate buffered solution, pH 7.2, containing 0.05% proclin 300.

Applications Recommended Dilution

ELISA Detector	0.1-0.4 µg/mL
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Data



Sandwich ELISA-Recombinant Human Serum Amyloid A1/SAA protein standard curve. Background subtracted standard curve using Serum Amyloid A1/SAA antibody(AN001580P)(Capture), Serum Amyloid A1/SAA antibody(AN001590P)(Detector) in sandwich ELISA. The reference range value for Recombinant Human Serum Amyloid A1/SAA protein is 1.25-80 ng/mL.

Preparation & Storage

Storage	Store at 4°C valid for 12 months or -20°C valid for long term storage, avoid freeze / thaw cycles.
Shipping	The product is shipped with ice pack, upon receipt, store it immediately at the temperature recommended.

Background

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The apolipoproteins are a structurally-unrelated group of proteins that have some association with the transport of lipids in blood. Apolipoproteins, plus phospholipids, cholesterol and triglycerides, form spherical particles with a lipid/hydrophobic center and a (apolipo)protein coat. The apolipoprotein coat promotes aqueous solubility and serves as a ligand for lipoprotein receptors. HDL may contain apolipoproteins A, C, D, E, J, I and M, while LDL contains apolipoproteins B and E.

ApoA1 and ApoA2 are major protein components of serum high-density lipoprotein (HDL) and are produced by the liver and small intestine. They are involved in reverse cholesterol transport from tissues to the liver. Polymorphisms of ApoA2 are associated with disorders of cholesterol and fatty acid metabolism. Human ApoB (Apolipoprotein B-100) is a 550 kDa, secreted, palmitoylated glycoprotein that is part of LDL and VLDL particles. It is made by liver and is 4536 aa in length. It binds LDL to the ApoB/E receptor. ApoC activates lipoprotein lipase and may self-associate to form amyloid-type fibrils.

ApoE is a 34 kDa protein component of serum chylomicrons, VLDL, and HDL particles. It mediates the binding, uptake, and catabolism of these particles through interactions with the ApoE receptor and LDL receptors in the liver and brain. ApoE is important in fatty acid homeostasis and memory formation. Polymorphisms encode three variants (ApoE2,3,4) which are differentially related to the development of atherosclerosis and neurodegenerative disorders, particularly Alzheimer's disease.

Serum amyloid A proteins (SAAs) are a family of homologous apolipoproteins of high density lipoprotein (HDL). They can be divided into two groups. The first group consists of the acute phase SAA1 and SAA2 that associate with HDL during inflammation and remodel the HDL particle by displacing apolipoprotein A1. The second group consists of constitutively expressed SAA4 and SAA5 that exist as minor apolipoproteins on HDL but make up more than 90% of the total SAA during homeostasis.

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