



## Serum Amyloid A, His Tag, human recombinant (rHuSAA1-His)

**Catalog No:** 97289  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** Serum amyloid A protein, SAA, Amyloid protein A, Amyloid fibril protein AA, SAA1, SAA2, PIG4, TP53I4, MGC111216

### Background

SAA1 protein is an acute phase apolipoprotein reactant which is produced mostly by hepatocytes and under regulation of inflammatory cytokines. SAA1 (Serum amyloid A1) protein is produced mainly in the liver and circulates in low levels in the blood. The SAA1 seems to have a role in the immune system. SAA1 protein levels increase in the blood and other tissues under conditions of inflammation. SAA1 may facilitate the repair of injured tissues; it also acts as an antibacterial agent, and signals the migration of germ-fighting cells to sites of infection. SAA1 also functions as an apolipoprotein of the HDL complex. Elevated levels of SAA1 ultimately affect secondary amyloidosis, extracellular amassing of amyloid fibrils, resulting from a circulating precursor, in a variety of tissues and organs. The most widespread type of amyloidosis appears secondary to chronic inflammatory disease, mainly rheumatoid arthritis. The SAA1 cleavage product a designated amyloid protein A is deposited systemically as amyloid in vital organs such as the liver, spleen, and kidneys in chronic inflammatory diseases patients. These deposits are extremely insoluble and resistant to proteolysis; they disrupt tissue structure and compromise performance.

### Description

SAA1 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 125 amino acids (19-122) and having a total molecular mass of 13.9 kDa. SAA1 is fused to 20 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered colorless solution.

### Formulation

The SAA1 solution contains 20 mM Tris buffer(pH 8.0) and 10% glycerol.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Purity

Greater than 95.0% as determined by SDS-PAGE.

### Amino Acid Sequence

MGSSHHHHHH SSSLVPRGSH MRSFFSFLGE AFDGARDMWR AYSDMREANY IGSDKYFHAR GNYDAAKRGF GGVWAAEAIS  
DARENIQRFF GHGAEDSLAD QAANEWGRSG KDPNHFRPAG LPEKY

### Usage

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