## Anti-Human SAA1 Antibody [A10E7] - BSA and Azide free (Capture)

### **HA601333**

Product Type: Mouse monoclonal IgG1, primary antibodies

Species reactivity: Human

**Applications:** ELISA(Cap)

Molecular Wt: Predicted band size: 13.5 kDa

Clone number: A10E7

**Description:** Serum amyloid A1 (SAA1) is a protein that in humans is encoded by the SAA1 gene. SAA1 is

a major acute-phase protein mainly produced by hepatocytes in response to infection, tissue injury and malignancy. When released into blood circulation, SAA1 is present as an apolipoprotein associated with high-density lipoprotein (HDL). SAA1 is a major precursor of amyloid A (AA), the deposit of which leads to inflammatory amyloidosis. As a result, SAA1 has been a clinical indicator and reliable biomarker for inflammatory diseases, chronic metabolic disorders and late-stage malignancy. Inflammatory amyloidosis results from chronic inflammation with increased production of SAA1, which is a major precursor of amyloid A fibril deposit in various tissues. SAA1 has been extensively studied for its binding to HDL, with results suggesting a role in lipid metabolism. During the acute-phase response, elevated levels of SAA1 in the plasma displaces ApoA-I and becomes a major apolipoprotein

of HDL.

Immunogen: Recombinant protein within human SAA1 aa 19-122 (P0DJI8).

Positive control: Recombinant human SAA protein (HA210927).

Subcellular location: Secreted.

Database links: SwissProt: P0DJI8 Human

**Recommended Dilutions:** 

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit

monoclonal [A10E6] to Human SAA1 (Detector) (HA601334) and recombinant standard

Human SAA1 (HA210927). The reference range value is 329-80,000 pg/ml.

Storage Buffer: PBS (pH7.4).

**Storage Instruction:** Store at  $+4^{\circ}$ C after thawing. Aliquot store at  $-20^{\circ}$ C. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

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### **Images**

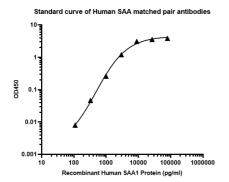
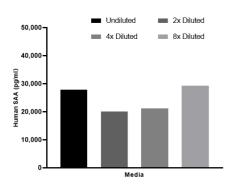


Fig1: Sandwich ELISA analysis of Human SAA matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100  $\,\mu l$  per well of capture antibody (HA601333) diluted in carbonate/bicarbonate buffer, at a concentration of 5  $\,\mu g/m l$  overnight at  $4\,^{\circ}\mathrm{C}$ . Wells of the plate were washed, blocked with 150  $\,\mu l$  0.05% tween-20 1%BSA blocking buffer, and incubated with serial diluted Recombinant human SAA protein (HA210927) starting from 80000 pg/ml to 0 pg/ml and detect antibody (HA601334, Biotin, 0.2  $\,\mu g/m l)$  for 1 hour at 30  $^{\circ}\mathrm{C}$  with shaking. Then the plate was washed and incubated with 100  $\,\mu l$  per well of SA-HRP for 0.5 hour at 30  $^{\circ}\mathrm{C}$  with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.



**Fig2:** The concentrations of SAA were measured in duplicates, interpolated from the SAA standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 25%.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### **Background References**

- 1. Takehara M et al. Cancer-associated adipocytes promote pancreatic cancer progression through SAA1 expression. Cancer Sci. 2020 Aug
- 2. Xiao Y et al. SAA1 deficiency alleviates cardiac remodeling by inhibiting NF-κB/p38/JNK and TGFβ/Smad pathways. FASEB J. 2023 May