

SAA (115): sc-59679

BACKGROUND

The serum Amyloid A (SAA) family of proteins is encoded by multiple genes which display allelic variation and a high degree of homology in mammals. The four members of the SAA gene family are clustered on human chromosome 11p15.1. Three SAA genes are differentially expressed and encode small apo-lipoproteins. SAA1 and SAA2 encode the acute phase SAAs (A-SAAs), and SAA4 encodes the constitutively expressed SAA (C-SAA). A fourth locus, SAA3 is a pseudogene that contains two C/EBP-binding sites and a third site, which interacts with SAA3 enhancer factor. Human SAA proteins are a group of apolipoproteins found predominantly in the high-density lipoprotein (HDL) fraction of plasma. SAA is a major acute-phase protein and precursor to Amyloid A protein, which is the major constituent of the fibril deposits of reactive amyloidosis. SAA is secreted in large amounts by the liver during microbial infections or inflammatory diseases.

REFERENCES

1. Klue-Beckerman, B., et al. 1986. DNA sequence evidence for polymorphic forms of human serum Amyloid A (SAA). *Biochem. Genet.* 24: 795-803.
2. Klue-Beckerman, B., et al. 1988. Human serum Amyloid A. Three hepatic mRNAs and the corresponding proteins in one person. *J. Clin. Invest.* 82: 1670-1675.

CHROMOSOMAL LOCATION

Genetic locus: SAA1 (human) mapping to 11p15.1.

SOURCE

SAA (115) is a mouse monoclonal antibody raised against highly purified recombinant SAA of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SAA (115) is recommended for detection of natural and recombinant SAA of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other human cytokines or growth factors tested such as IL-1β, IL-8, MCAF, TGFβ and EGF.

Suitable for use as control antibody for SAA siRNA (h): sc-40817, SAA shRNA Plasmid (h): sc-40817-SH and SAA shRNA (h) Lentiviral Particles: sc-40817-V.

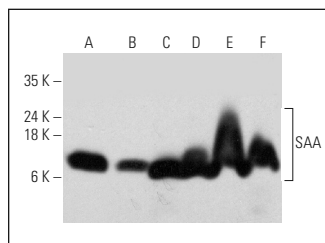
Molecular Weight of SAA: 12 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, human liver extract: sc-363766 or MDA-MB-231 cell lysate: sc-2232.

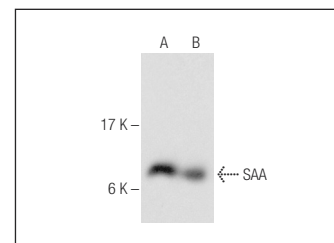
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



SAA (115): sc-59679. Western blot analysis of SAA expression in Caki-1 (A) and MDA-MB-231 (B) whole cell lysates and human spleen (C), human liver (D), human adipose (E) and human thymus (F) tissue extracts.



SAA (115): sc-59679. Western blot analysis of SAA expression in Caki-1 whole cell lysate (A) and of SAA human plasma (B).

SELECT PRODUCT CITATIONS

1. Xue, A., et al. 2012. Serum apolipoprotein C-II is prognostic for survival after pancreatic resection for adenocarcinoma. *Br. J. Cancer* 107: 1883-1891.
2. Kumar, A., et al. 2021. The polysaccharide chitosan facilitates the isolation of small extracellular vesicles from multiple biofluids. *J. Extracell. Vesicles* 10: e12138.
3. Ghosh, S., et al. 2022. Amyloid deposition in granuloma of tuberculosis patients: a single-center pilot study. *Tuberculosis* 136: 102249.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.