SANTA CRUZ BIOTECHNOLOGY, INC.

SAA (SAA14): sc-52214

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 apolipoproteins. 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. Kluve-Beckerman, B., et al. 1986. DNA sequence evidence for polymorphoic forms of human serum amyloid (SAA). Biochem. Genet. 24: 795-803.
2. Kluve-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.
3. Beach, C.M., et al. 1992. Human serum amyloid A protein. Complete amino acid sequence of a new variant. Biochem. J. 282: 615-620.
4. Sellar, G.C., et al. 1994. Organization of the region encompassing the human serum amyloid A (SAA) gene family on chromosome 11p15.1. Genomics 23: 492-495.
5. Bing, Z., et al. 1999. Purification and characterization of the serum amyloid A3 enhancer factor. J. Biol. Chem. 274: 24649-24656.
6. Badolato, R., et al. 2000. Serum amyloid A is an activator of PMN antimicrobial functions: induction of degranulation, phagocytosis, and enhancement of anti-Candida activity. J. Leukoc. Biol. 67: 381-386.
7. Artl, A., et al. 2000. Role of serum amyloid A during metabolism of acute-phase HDL by macrophages. Arterioscler. Thromb. Vasc. Biol. 20: 763-772.

CHROMOSOMAL LOCATION

Genetic locus: SAA1/SAA2 (human) mapping to 11p15.1.

SOURCE

SAA (SAA14) is a mouse monoclonal antibody raised against recombinant SAA of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

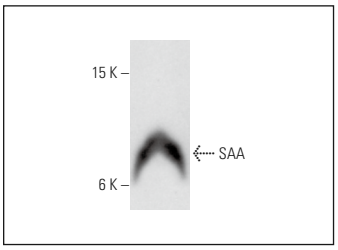
SAA (SAA14) is recommended for detection of SAA of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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 whole cell lysate: sc-2224.

DATA



SAA (SAA14): sc-52214. Western blot analysis of SAA expression in Caki-1 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Eichten, A., et al. 2016. Resistance to anti-VEGF therapy mediated by autocrine IL-6/Stat3 signaling and overcome by IL-6 blockade. Cancer Res. 76: 2327-2339.

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.