SANTA CRUZ BIOTECHNOLOGY, INC.

AOAH Small Subunit (H-122): sc-135086

BACKGROUND

AOAH (acyloxyacyl hydrolase) is a 575 amino acid protein that contains one saposin B-type domain. AOAH is cleaved into two chains, designated AOAH small subunit and AOAH large subunit, both of which contain many cysteine residues that may form disulfide bridges. Mature AOAH is a heterodimer that removes the secondary (acyloxyacyl-linked) fatty acyl chains from the lipid A region of bacterial endotoxins. AOAH is also thought to regulate host inflammatory responses to gram-negative bacterial invasion. The larger subunit of AOAH contains a Gly-X-Ser-X-Gly amino acid sequence that is found at the active site of many lipases, whereas the small subunit contains an amino acid sequence similar to saposins, which are cofactors for sphingolipid glycohydrolases. Both subunits are required in the proper orientation for specific catalytic activity toward LPS and glycerophosphatidylcholine.

REFERENCES

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3. Munford, R.S., et al. 1992. Acyloxyacyl hydrolase, a leukocyte enzyme that deacylates bacterial lipopolysaccharides, has phospholipase, lysophospholipase, diacylglycerollipase, and acyltransferase activities *in vitro*. J. Biol. Chem. 267: 10116-10121.
4. Whitmore, T.E., et al. 1994. Chromosomal localization of the acyloxyacyl hydrolase (AOAH) gene to 7p14-p12 using fluorescence *in situ* hybridization. Genomics 21: 457-458.
5. Staab, J.F., et al. 1994. A saposin-like domain influences the intracellular localization, stability, and catalytic activity of human acyloxyacyl hydrolase. J. Biol. Chem. 269: 23736-23742.
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7. Coulthard, M.G., et al. 1996. Adenovirus-mediated transfer of a gene encoding acyloxyacyl hydrolase (AOAH) into mice increases tissue and plasma AOAH activity. Infect. Immunol. 64: 1510-1515.
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CHROMOSOMAL LOCATION

Genetic locus: AOAH (human) mapping to 7p14.2; Aoah (mouse) mapping to 13 A2.

SOURCE

AOAH Small Subunit (H-122) is a rabbit polyclonal antibody raised against amino acids 35-156 mapping near the N-terminus of AOAH precursor protein of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

AOAH Small Subunit (H-122) is recommended for detection of AOAH small subunit of human and, to a lesser extent, mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AOAH Small Subunit (H-122) is also recommended for detection of AOAH small subunit in additional species, including equine.

Molecular Weight of AOAH Small Subunit: 15 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.