SANTA CRUZ BIOTECHNOLOGY, INC.

ASC (C-15): sc-33958

BACKGROUND

Caspase-associated recruitment domains (CARDs) mediate the interaction between adaptor proteins such as APAF1 and the proform of caspases (e.g. CASP9) participating in apoptosis. ASC (apoptosis-associated speck-like protein containing a CARD, also known as TMS1or PYCARD) is a member of the CARD-containing adaptor protein family. ASC is a 195 amino acid protein that contains an N-terminal pyrin-like domain (PYD) and an 87 residue C-terminal CARD. This motif is characteristic of numerous proteins involved in apoptotic signaling. Fluorescence microscopy demonstrates a ring-like expression in some transfected cells. Immunofluorescence microscopy demonstrates that induction of apoptosis causes a CARD-dependent shift from diffuse cytoplasmic expression to punctate or spherical perinuclear aggregates. Western blot analysis shows expression of ASC in leukemia and melanoma cell lines. ASC exhibits intriguing behavior by forming an aggregate and appearing as a speck during apoptosis induced by retinoic acid and other anti-tumor drugs. The ASC gene maps to human chromosome 16p11.2.

CHROMOSOMAL LOCATION

Genetic locus: PYCARD (human) mapping to 16p11.2; Pycard (mouse) mapping to 7 F3.

SOURCE

ASC (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ASC 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.

Blocking peptide available for competition studies, sc-33958 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ASC (C-15) is recommended for detection of ASC of human and, to a lesser extent, mouse 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).

Suitable for use as control antibody for ASC siRNA (h): sc-37281, ASC siRNA (m): sc-37282, ASC shRNA Plasmid (h): sc-37281-SH, ASC shRNA Plasmid (m): sc-37282-SH, ASC shRNA (h) Lentiviral Particles: sc-37281-V and ASC shRNA (m) Lentiviral Particles: sc-37282-V.

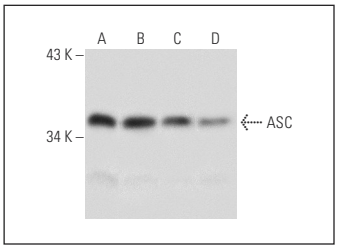
Molecular Weight of ASC: 24 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, SK-MEL-28 cell lysate: sc-2236 or U-937 cell lysate: sc-2239.

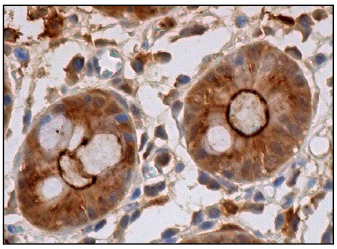
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ASC (C-15): sc-33958. Western blot analysis of ASC expression in HL-60 (**A**), U-937 (**B**), SK-MEL-28 (**C**) and K-562 (**D**) whole cell lysates.



ASC (C-15): sc-33958. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic, apical membrane and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Xiang, M., et al. 2011. Hemorrhagic shock activation of NLRP3 inflammasome in lung endothelial cells. J. Immunol. 187: 4809-4817.

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.