

ASC (N-15)-R: sc-22514-R

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 TMS1 or 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 (N-15)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping of ASC of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-22514 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 (N-15)-R is recommended for detection of ASC of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). ASC (N-15) is also recommended for detection of ASC in additional species, including bovine.

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.

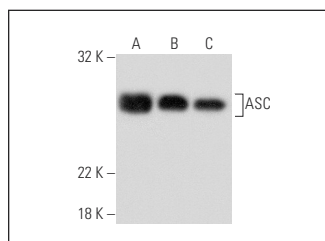
Molecular Weight of ASC: 24 kDa.

Positive Controls: ASC (m): 293T Lysate: sc-126449, U-937 cell lysate: sc-2239 or HL-60 whole cell lysate: sc-2209.

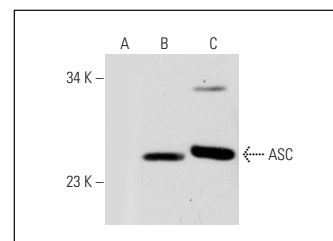
RECOMMENDED SECONDARY REAGENTS

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.

DATA



ASC (N-15)-R: sc-22514-R. Western blot analysis of ASC expression in U-937 (A), SK-MEL-28 (B) and K-562 (C) whole cell lysates.



ASC (N-15)-R: sc-22514-R. Western blot analysis of ASC expression in non-transfected 293T: sc-117752 (A), mouse ASC transfected 293T: sc-126449 (B) and HL-60 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Panchanathan, R., et al. 2010. Aim2 deficiency stimulates the expression of IFN-inducible Irf202, a lupus susceptibility murine gene within the Nba2 autoimmune susceptibility locus. *J. Immunol.* 185: 7385-7393.
- Lunov, O., et al. 2011. Amino-functionalized polystyrene nanoparticles activate the NLRP3 inflammasome in human macrophages. *ACS Nano* 5: 9648-9657.
- Lee, H.M., et al. 2013. Upregulated NLRP3 inflammasome activation in patients with type 2 diabetes. *Diabetes* 62: 194-204.
- Liu, D., et al. 2014. Activation of the Nlrp3 inflammasome by mitochondrial reactive oxygen species: a novel mechanism of albumin-induced tubulointerstitial inflammation. *Int. J. Biochem. Cell Biol.* 57: 7-19.
- Iracheta-Vellve, A., et al. 2015. Inhibition of sterile danger signals, uric acid and ATP, prevents inflammasome activation and protects from alcoholic steatohepatitis in mice. *J. Hepatol.* 63: 1147-1155.

RESEARCH USE

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



Try **ASC (B-3): sc-514414** or **ASC (F-9): sc-271054**, our highly recommended monoclonal alternatives to ASC (N-15). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **ASC (B-3): sc-514414**.