

ASC (m): 293T Lysate: sc-126449

BACKGROUND

Caspase-associated recruitment domains (CARDs) mediate the interaction between adaptor proteins, such as Apaf-1 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 containing 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.

REFERENCES

1. Masumoto, J., et al. 1999. ASC, a novel 22 kDa protein, aggregates during apoptosis of human promyelocytic leukemia HL-60 cells. *J. Biol. Chem.* 274: 33835-33838.
2. Conway, K.E., et al. 2000. TMS1, a novel proapoptotic caspase recruitment domain protein, is a target of methylation-induced gene silencing in human breast cancers. *Cancer Res.* 60: 6236-6242.
3. McConnell, B.B., et al. 2000. Activation of a caspase-9-mediated apoptotic pathway by subcellular redistribution of the novel caspase recruitment domain protein TMS1. *Cancer Res.* 60: 6243-6247.
4. Martinon, F., et al. 2001. The Pyrin domain: a possible member of the death domain-fold family implicated in apoptosis and inflammation. *Curr. Biol.* 10: R118-R120.
5. LocusLink Report (LocusID: 606838). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: Pycard (mouse) mapping to 7 F4.

PRODUCT

ASC (m): 293T Lysate represents a lysate of mouse ASC transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ASC (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ASC antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.