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ProductInformation

Anti-ASC/TMS1
Developed in Rabbit

Product Number **A1601**

Product Description

Anti-ASC/TMS1 is developed in rabbit using a synthetic peptide (RESQSYLVEDLERS) corresponding to amino acids 182-195 of human ASC[1] as immunogen. This antibody is purified by immunoaffinity chromatography.

Anti-ASC/TMS1 recognizes human ASC/TMS1 (approximately 25 kDa) by immunoblotting.

Apoptosis is regulated by death domain (DD) and caspase recruitment domain (CARD) containing molecules and the caspase family of proteases. CARD containing cell death regulators include RAIDD, RICK, Bcl-10, Apaf-1, ARC, caspase-9, and caspase-2.

A novel CARD domain containing protein has been identified in human and mouse and designated ASC (apoptosis-associated speck-like protein containing a CARD) and TMS1 (target of methylation-induced silencing).[1-3] Ectopic expression of ASC/TMS1 induced apoptosis through activation of caspase-9 and inhibited the survival of human breast cancer cells.[3,4] Over-expression of ASC/TMS1 induces DNA fragmentation.[4] Asc/TMS1 is expressed in a variety of human and mouse tissues.[1,2]

Reagents

Anti-ASC/TMS1 is supplied as approximately 0.5 mg/ml of antiserum in phosphate buffered saline containing 0.02% sodium azide.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) has been sent to the attention of the safety officer at your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Do not store in a "frost-free" freezer. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

For immunoblotting, the recommended working antibody concentration is approximately 1 µg/ml using human HL60 promyeloblastic leukemia whole cell lysates.

Note: In order to obtain the best results and assay sensitivities in various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Masumoto, J., et al., ASC, a novel 22-kDa protein, aggregates during apoptosis of human promyelocytic leukemia HL-60 cells. J. Biol. Chem., **274**, 33835-33838 (1999).
2. Masumoto, J., et al., Murine ortholog of ASC, a CARD-containing protein, self-associates and exhibits restricted distribution in developing mouse embryos. Exp. Cell Res., **262**, 128-133 (2001).
3. Conway, K.E., et al., 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 (2000).
4. McConnell, B.B., and Vetino, P.M., Activation of a caspase-9-mediated apoptotic pathway by subcellular redistribution of the novel caspase recruitment domain protein TMS1. Cancer Res., **60**, 6243-6247 (2000).

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