

**ASC/TMS1 (E1E3I) Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

|                                      |                         |                                   |                                |                                      |                               |                                 |
|--------------------------------------|-------------------------|-----------------------------------|--------------------------------|--------------------------------------|-------------------------------|---------------------------------|
| <b>Applications:</b><br>W, IP, IHC-P | <b>Reactivity:</b><br>H | <b>Sensitivity:</b><br>Endogenous | <b>MW (kDa):</b><br>22, 19, 15 | <b>Source/Isotype:</b><br>Rabbit IgG | <b>UniProt ID:</b><br>#Q9ULZ3 | <b>Entrez-Gene Id:</b><br>29108 |
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**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:50  
1:6000 - 1:24000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

**Specificity/Sensitivity**

ASC/TMS1 (E1E3I) Rabbit mAb recognizes endogenous levels of total ASC/TMS1 protein. This antibody can detect three known isoforms of ASC/TMS1.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human ASC/TMS1 protein, isoform 1.

**Background**

TMS1 (target of methylation-induced silencing)/ASC (apoptosis-associated speck-like protein containing a CARD), also referred to as PYCARD and CARD5, is a 22 kDa pro-apoptotic protein containing an N-terminal pyrin domain (PYD) and a C-terminal caspase recruitment domain (CARD) (1-2). The *ASC/TMS1* gene was originally found to be aberrantly methylated and silenced in breast cancer cells (2), and has since been found to be silenced in a number of other cancers, including ovarian cancer (3), glioblastoma (4), melanoma (5), gastric cancer (6), lung cancer (7), and prostate cancer (8). Expression of ASC/TMS1 can be induced by pro-apoptotic/inflammatory stimuli (9). During apoptosis ASC/TMS1 is re-distributed from the cytosol to the mitochondria and associates with mitochondrial Bax to trigger cytochrome c release and subsequent apoptosis (10). ASC/TMS1 has also been found to be a critical component of inflammatory signaling where it associates with and activates caspase-1 in response to pro-inflammatory signals (11).

**Background References**

- Masumoto, J. et al. (1999) *J Biol Chem* 274, 33835-8.
- Conway, K.E. et al. (2000) *Cancer Res* 60, 6236-42.
- Terasawa, K. et al. (2004) *Clin Cancer Res* 10, 2000-6.
- Stone, A.R. et al. (2004) *Am J Pathol* 165, 1151-61.
- Guan, X. et al. (2003) *Int J Cancer* 107, 202-8.
- Moriai, R. et al. (2002) *Anticancer Res* 22, 4163-8.
- Virmani, A. et al. (2003) *Int J Cancer* 106, 198-204.
- Das, P.M. et al. (2006) *Mol Cancer* 5, 28.
- Strong, R. et al. (1991) *Brain Res* 542, 23-8.
- Ohtsuka, T. et al. (2004) *Nat Cell Biol* 6, 121-8.
- Srinivasula, S.M. et al. (2002) *J Biol Chem* 277, 21119-22.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**H:** Human

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