

**#13833** Store at -20°C

## ASC/TMS1 (E1E3I) Rabbit mAb


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, W-S, IP, IHC-P	H	Endogenous	22, 19, 15	Rabbit IgG	#Q9ULZ3	29108

### Product Usage Information

#### Application

Western Blotting	1:1000
Simple Western™	1:10 - 1:50
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	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

1. Masumoto, J. et al. (1999) *J Biol Chem* 274, 33835-8.
2. Conway, K.E. et al. (2000) *Cancer Res* 60, 6236-42.
3. Terasawa, K. et al. (2004) *Clin Cancer Res* 10, 2000-6.
4. Stone, A.R. et al. (2004) *Am J Pathol* 165, 1151-61.
5. Guan, X. et al. (2003) *Int J Cancer* 107, 202-8.
6. Moriai, R. et al. (2002) *Anticancer Res* 22, 4163-8.
7. Virmani, A. et al. (2003) *Int J Cancer* 106, 198-204.
8. Das, P.M. et al. (2006) *Mol Cancer* 5, 28.
9. Strong, R. et al. (1991) *Brain Res* 542, 23-8.
10. Ohtsuka, T. et al. (2004) *Nat Cell Biol* 6, 121-8.
11. 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

**WB:** Western Blotting **W-S:** Simple Western™ **IP:** Immunoprecipitation  
**IHC-P:** Immunohistochemistry (Paraffin)

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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