

TMS1 Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	22	Rabbit	#Q9ULZ3	29108

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

TMS1 Antibody detects endogenous levels of total TMS1 protein.

Species predicted to react based on 100% sequence homology

Mouse, Rat, Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of mouse TMS1. Antibodies are purified by protein A and peptide affinity chromatography.

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

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- Conway, K.E. et al. (2000) *Cancer Res* 60, 6236-42.
- Terasawa, K. et al. (2004) *Clin Cancer Res* 10, 2000-6.
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- 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.
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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

Cross-Reactivity Key

H: Human

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