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ASC/TMS1 (D2W8U) Rabbit mAb (PE Conjugate)

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

Applications: FC-FP	Reactivity: M	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #Q9EPB4	Entrez-Gene Id: 66824
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Product Usage Information

Application

Flow Cytometry (Fixed/Permeabilized)

Dilution

1:50

Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity/Sensitivity

ASC/TMS1 (D2W8U) Rabbit mAb (PE Conjugate) recognizes endogenous levels of total ASC protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant mouse ASC protein.

Description

This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometric analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated ASC/TMS1 (D2W8U) Rabbit mAb #67824.

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.
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- Guan, X. et al. (2003) *Int J Cancer* 107, 202-8.
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- 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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- 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).

Applications Key

FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

M: Mouse

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