

20-1005: Polyclonal antibody to ASC/TMS1

Clonality :	Polyclonal
Application :	WB
Reactivity :	Human
Gene :	PYCARD
Gene ID :	29108
Uniprot ID :	Q9ULZ3
Format :	Sera
Alternative Name :	PYCARD,ASC,CARD5,TMS1
Isotype :	Rabbit IgG
Immunogen Information :	A synthetic peptide of ASC/TMS1 protein (amino acids 83-102 GQLQAATHQGSGAAPAGIQA) was used as the immunogen for this antibody

Description

ASC [apoptosis-associated speck-like protein containing a CARD (caspase-recruitment domain)] is a bimodal protein containing a pyrin/paad domain (PYD/PAAD) and a caspase recruitment domain (CARD) ASC is also known as TMS1 (target of methylation-induced silencing). In general proteins, like ASC/TMS1, containing PYD/PAAD and CARD domains play key roles in regulating apoptosis and inflammation signaling pathways. Mutations in a number of PYD/PAAD- and CARD-containing proteins have been linked to inflammatory diseases and cancer. There is evidence that ASC/TMS1 has roles in both apoptosis and inflammation signaling pathways. With respect to inflammation, ASC/TMS1 interacts with the CARD of procaspase-1 and induces aggregation of a protein complex called the inflammasome, thereby regulating caspase-1 activation and secretion of IL-1b. Additionally, ASC/TMS1 has been found to be subjected to methylation-mediated silencing in a significant proportion of human breast tumors and other cancers, including melanomas, glioblastomas, non-small lung cancers, gastric and colorectal cancers. The loss of ASC/TMS1 expression in breast tumors and other cancers through methylation-mediated (epigenetic) silencing suggests that ASC/TMS1 has a role in tumorigenesis. In general, it is thought that methylation-mediated gene silencing contributes to tumorigenesis by inactivating genes involved in tumor suppression, and by conferring resistance to cell death signals by silencing genes that promote apoptosis. Thus methylation-mediated silencing of ASC/TMS1 may confer a survival advantage to tumor cells by enabling them to escape apoptosis. However, the precise role of ASC/TMS1 in the pathogenesis of cancer remains to be fully elucidated.

Product Info

Amount :	50 µl
Content :	50 µl sera
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

WB: 1:1000-1:5000

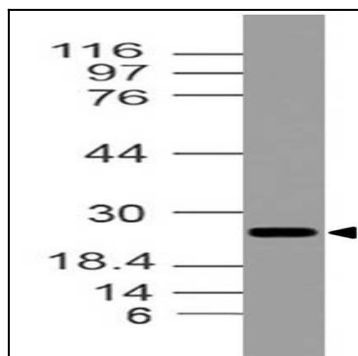


Fig-1: Western blot analysis of ASC/TMS1. Anti- ASC/TMS1 antibody (20-1005) was used with 1:1000 dilution on U937 lysate.