

# ARG41704 anti-ASC / TMS1 antibody

Package: 100 μl Store at: -20°C

# Summary

| Product DescriptionRabit Polyclonal antibody recognizes ASC / TMS1Tested ReactivityHuTested ApplicationFACS, ICC/IF, WBHostRabitClonalityPolyclonalI fortpeIgGTarget NameSC / TMS1SpeciesHumanInmunogenSntheit eptide of Human ASC / TMS1.ConjugationDioposis-associated speck-like protein containing a CARD; TMS1; SPYD and CARD domain and speck speck-like protein speck spe  |                     |   |
|---|---------------------|---|
| Tested ApplicationFACS, ICC/IF, WBHostRabbitClonalityPolyclonalIsotypeIgGTarget NameASC / TMS1SpeciesHumanImmunogenSynthetic petide of Human ASC / TMS1.ConjugationUn-conjugated speck-like protein containing a CARD; TMS2; PYD and CARD domain-containing protein; hASC; ASC; TMS51; Caspase recruitment domain-containing protein; hASC; STMS51; Caspase recruitment domain-containing protein; protein; hASC; STMS51; Caspase recruitment domain-containing protein; protein                            | Product Description | Rabbit Polyclonal antibody recognizes ASC / TMS1  |
| HostRabbitClonalityPolyclonalIsotypeIgGTarget NameASC / TMS1SpeciesHumanImmunogenSynthetic peptide of Human ASC / TMS1.ConjugationUn-conjugatedAlternate NamesApoptosis-associated speck-like protein containing a CARD; TMS; PYD and CARD domain-containing protein 5; Target of   | Tested Reactivity   | Hu  |
| ClonalityPolyclonalIsotypeIgGTarget NameASC / TMS1SpeciesHumanImmunogenSynthetic peptide of Human ASC / TMS1.ConjugationUn-conjugatedAlternate NamesApoptosis-associated speck-like protein containing protein 5; Target of Singet of | Tested Application  | FACS, ICC/IF, WB  |
| IsotypeIgGTarget NameASC / TMS1SpeciesHumanImmunogenSynthetic peptide of Human ASC / TMS1.ConjugationUn-conjugatedAlternate NamesApoptosis-associated speck-like protein containing a CARD; TMS; PYD and CARD domain-containing protein 5; Target of  | Host                | Rabbit  |
| Target NameASC / TMS1SpeciesHumanImmunogenSynthetic peptide of Human ASC / TMS1.ConjugationUn-conjugatedAlternate NamesApoptosis-associated speck-like protein containing a CARD; TMS; PYD and CARD domain-containing protein 5; Target of  | Clonality           | Polyclonal  |
| SpeciesHumanImmunogenSynthetic peptide of Human ASC / TMS1.ConjugationUn-conjugatedAlternate NamesApoptosis-associated speck-like protein containing a CARD; TMS; PYD and CARD domain-containing<br>protein; hASC; ASC; TMS-1; TMS1; Caspase recruitment domain-containing protein 5; Target of   | Isotype             | IgG   |
| ImmunogenSynthetic peptide of Human ASC / TMS1.ConjugationUn-conjugatedAlternate NamesApoptosis-associated speck-like protein containing a CARD; TMS; PYD and CARD domain-containing<br>protein; hASC; ASC; TMS-1; TMS1; Caspase recruitment domain-containing protein 5; Target of   | Target Name         | ASC / TMS1  |
| ConjugationUn-conjugatedAlternate NamesApoptosis-associated speck-like protein containing a CARD; TMS; PYD and CARD domain-containing<br>protein; hASC; ASC; TMS-1; TMS1; Caspase recruitment domain-containing protein 5; Target of  | Species             | Human   |
| Alternate Names Apoptosis-associated speck-like protein containing a CARD; TMS; PYD and CARD domain-containing protein; hASC; ASC; TMS-1; TMS1; Caspase recruitment domain-containing protein 5; Target of  | Immunogen           | Synthetic peptide of Human ASC / TMS1.  |
| protein; hASC; ASC; TMS-1; TMS1; Caspase recruitment domain-containing protein 5; Target of   | Conjugation         | Un-conjugated   |
|   | Alternate Names     | protein; hASC; ASC; TMS-1; TMS1; Caspase recruitment domain-containing protein 5; Target of |

# **Application Instructions**

| Application table | Application | Dilution   |  |
|-------------------|-------------|--|--|
|                   | FACS        | 1:50   |  |
|                   | ICC/IF      | 1:50 - 1:200   |  |
|                   | WB          | 1:500 - 1:2000   |  |
| Application Note  |             | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |  |
| Observed Size     | ~ 22 kDa    |  |  |

# Properties

| Form                | Liquid  |
|---------------------|---|
| Purification        | Affinity purified.  |
| Buffer              | PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.   |
| Preservative        | 0.02% Sodium azide  |
| Stabilizer          | 50% Glycerol  |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |

# Bioinformation

| Gene Symbol           | PYCARD   |
|-----------------------|--|
| Gene Full Name        | PYD and CARD domain containing   |
| Background            | ASC / TMS1 is an adaptor protein. It is composed of two protein-protein interaction domains: a N-<br>terminal PYRIN-PAAD-DAPIN domain (PYD) and a C-terminal caspase-recruitment domain (CARD). The<br>PYD and CARD domains are members of the six-helix bundle death domain-fold superfamily that<br>mediates assembly of large signaling complexes in the inflammatory and apoptotic signaling pathways<br>via the activation of caspase. In normal cells, this protein is localized to the cytoplasm; however, in cells<br>undergoing apoptosis, it forms ball-like aggregates near the nuclear periphery. Two transcript variants<br>encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]   |
| Function              | ASC / TMS1 functions as key mediator in apoptosis and inflammation. Promotes caspase-mediated apoptosis involving predominantly caspase-8 and also caspase-9 in a probable cell type-specific manner. Involved in activation of the mitochondrial apoptotic pathway, promotes caspase-8-dependent proteolytic maturation of BID independently of FADD in certain cell types and also mediates mitochondrial translocation of BAX and activates BAX-dependent apoptosis oupled to activation of caspase-9, -2 and -3. Involved in macrophage pyroptosis, a caspase-1-dependent inflammatory form of cell death and is the major constituent of the ASC pyroptosome which forms upon potassium depletion and rapidly recruits and activates caspase-1. In innate immune response believed to act as an integral adapter in the assembly of the inflammasome which activates caspase-1 leading to processing and secretion of proinflammatory cytokines. The function as activating adapter in different types of inflammasomes is mediated by the pyrin and CARD domains and their homotypic interactions. Required for recruitment of caspase-1 to inflammasome scontaining certain pattern recognition receptors, such as NLRP2, NLRP3, AIM2 and probably IF16. In the NLRP1 and NLRC4 inflammasomes seems not be required but facilitates the processing of procaspase-1. In cooperation with NOD2 involved in an inflammasome-activated by bacterial muramyl dipeptide leading to caspase-1 activation. Isoform 2 may have a regulating effect on the function as inflammasome adapter. Isoform 3 seems to inhibit inflammasome-mediated maturation of interleukin-1 beta. In collaboration with AIM2 which detects cytosolic double-stranded DNA may also be involved in maturation of dendritic cells to stimulate T-cell immunity and in cytoskeletal rearrangements coupled to chemotaxis and antigen uptake may be involves angease-8. In adaptive immunity may be involved in transcriptional activation of cytokines and chemokines independent of the inflammasome; this function may involve AP-1, NF-kappa-B, MAPK |
| Highlight             | Related products:<br><u>TMS1 antibodies:</u> <u>TMS1 Duos / Panels:</u> <u>Anti-Rabbit IgG secondary antibodies:</u><br>Related news:<br><u>Exploring Antiviral Immune Response</u><br><u>RIP1 activation and pathogenesis of NASH</u>   |
| Research Area         | NLRP3 Inflammasome Study antibody; NLRC4 Inflammasome Study antibody   |
| Calculated Mw         | 22 kDa   |
| PTM                   | Phosphorylated. [UniProt]  |
| Cellular Localization | Cytoplasm. Endoplasmic reticulum. Mitochondrion. Nucleus. Note=Upstream of caspase activation, a redistribution from the cytoplasm to the aggregates occurs. These appear as hollow, perinuclear spherical, ball-like structures. Upon NLRP3 inflammasome activation redistributes to the perinuclear space localizing to endoplasmic reticulum and mitochondria. Localized primarily to the nucleus in resting monocytes/macrophages and rapidly redistributed to the cytoplasm upon pathogen infection. [UniProt]  |

