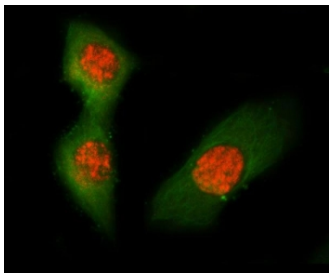
Asc Antibody / Pycard / Tms1 (RQ8006)

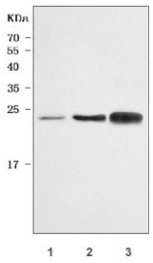
Catalog No.	Formulation	Size
RQ8006	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

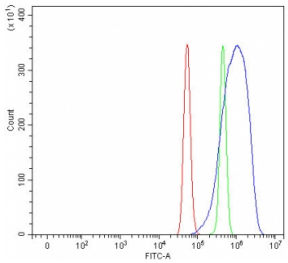
Availability	1-3 business days
Species Reactivity	Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9EPB4
Localization	Cytoplasmic, nuclear
Applications	Western blot: 0.5-1ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This Asc antibody is available for research use only.



Asc Antibody Mouse RM-1 Cell IF. Immunofluorescent staining of FFPE mouse RM-1 cells using Asc Antibody (red) and Alpha Tubulin monoclonal antibody (green). Asc is detected predominantly within the cytoplasm, consistent with its role as an inflammasome adaptor protein that mediates innate immune signaling, ASC speck formation, and inflammatory caspase activation. Alpha Tubulin staining highlights the microtubule cytoskeleton. Heat-induced epitope retrieval was performed by steaming sections in pH 6 citrate buffer for 20 minutes prior to immunofluorescent staining.



Asc Antibody WB. Western blot analysis of 1) mouse lung, 2) mouse spleen, and 3) mouse thymus tissue lysates using Asc Antibody. A distinct immunoreactive band is detected at approximately 22 kDa across all three tissue lysates, consistent with the predicted molecular weight of Asc (PYCARD), supporting specific detection of the endogenous inflammasome adaptor protein in mouse tissues.



Asc Antibody RAW264.7 FACS. Flow cytometric analysis of fixed and permeabilized mouse RAW264.7 cells using Asc Antibody at 1 ug per million cells. A clear rightward shift of the antibody-stained population (blue) relative to the isotype control (green) demonstrates specific detection of endogenous Asc (PYCARD) expression. Cells alone are shown in red. Cells were blocked with goat serum prior to antibody incubation to minimize non-specific binding.

Description

Asc Antibody specifically detects Asc protein, often referred to as Apoptosis-associated speck-like protein containing a CARD, a protein that in humans is encoded by the PYCARD gene. This gene encodes an adaptor protein that is composed of two protein-protein interaction domains: a N-terminal PYRIN-PAAD-DAPIN domain (PYD) and a C-terminal caspase-recruitment domain (CARD). The PYD and CARD domains are members of the six-helix bundle death domain-fold superfamily that mediates assembly of large signaling complexes in the inflammatory and apoptotic signaling pathways via the activation of caspase. In normal cells, this protein is localized to the cytoplasm; however, in cells undergoing apoptosis, it forms ball-like aggregates near the nuclear periphery. Two transcript variants encoding different isoforms have been found for this gene.

Learn more about PYCARD biology, inflammasome signaling, and additional validated products on our PYCARD Antibody page.

Application Notes

Optimal dilution of the Asc antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant mouse protein (amino acids K24-S193) was used as the immunogen for the Asc antibody.

Storage

After reconstitution, the Asc antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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