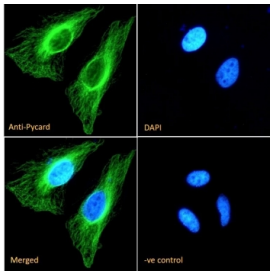
ASC Antibody / PYCARD (R33544)

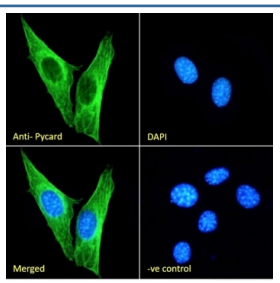
Catalog No.	Formulation	Size
R33544-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

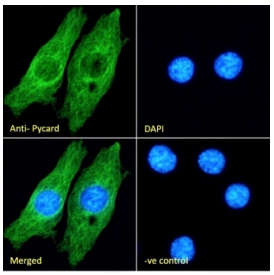
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	29108
Applications	Immunofluorescence: 10ug/ml ELISA (peptide) LOD: 1:128000
Limitations	This ASC / PYCARD antibody is available for research use only.



ASC Antibody / PYCARD HeLa Cell IF. Immunofluorescent staining of fixed and permeabilized human HeLa cells using ASC Antibody / PYCARD (green) at 10 ug/ml with DAPI nuclear counterstain (blue). PYCARD is detected predominantly within the cytoplasm, consistent with its role as an inflammasome adaptor protein that mediates ASC speck formation, inflammatory caspase activation, and innate immune signaling. The merged image demonstrates the cytoplasmic localization of PYCARD, while the negative control confirms staining specificity.



ASC Antibody / PYCARD NIH3T3 Cell IF. Immunofluorescent staining of fixed and permeabilized mouse NIH3T3 cells using ASC Antibody / PYCARD (green) at 10 ug/ml with DAPI nuclear counterstain (blue). PYCARD is detected predominantly within the cytoplasm, consistent with its function as an inflammasome adaptor protein involved in ASC speck formation, inflammatory signaling, and innate immune responses. The merged image demonstrates cytoplasmic localization of PYCARD, while the negative control confirms staining specificity.



ASC Antibody / PYCARD KNRK Cell IF. Immunofluorescent staining of fixed and permeabilized rat KNRK cells using ASC Antibody / PYCARD (green) at 10 ug/ml with DAPI nuclear counterstain (blue). PYCARD is detected predominantly within the cytoplasm, consistent with its role as an inflammasome adaptor protein that regulates ASC speck formation, inflammatory caspase activation, and innate immune signaling. The merged image demonstrates cytoplasmic localization of PYCARD, while the negative control confirms staining specificity.

Description

ASC Antibody / PYCARD recognizes apoptosis-associated speck-like protein containing a CARD (PYCARD), commonly known as ASC, a bipartite adaptor protein that serves as a central organizer of inflammasome signaling. PYCARD contains both a pyrin domain and a caspase recruitment domain, allowing it to bridge activated pattern recognition receptors with inflammatory caspases during innate immune responses. Through this adaptor function, ASC promotes assembly of multiprotein inflammasome complexes that initiate inflammatory cytokine maturation and pyroptotic cell death. ASC Antibody / PYCARD is widely used to investigate inflammasome activation, innate immunity, and inflammatory disease mechanisms.

PYCARD functions downstream of several innate immune receptors, including NLRP3, AIM2, and additional inflammasome-forming sensors. Following detection of microbial pathogens, cellular stress, or tissue damage, PYCARD rapidly oligomerizes into characteristic ASC specks that recruit and activate caspase 1. Activated caspase 1 processes pro-interleukin 1 beta and pro-interleukin 18 into their biologically active forms while triggering pyroptosis, an inflammatory form of programmed cell death that eliminates infected or damaged cells. These activities position PYCARD as a pivotal regulator of host defense and inflammatory signaling.

Beyond antimicrobial immunity, PYCARD contributes to sterile inflammation, tissue repair, neuroinflammation, cardiovascular disease, metabolic disorders, autoimmune disease, and cancer. Dysregulated inflammasome activation has been implicated in numerous chronic inflammatory conditions and neurodegenerative diseases, making PYCARD an important biomarker and potential therapeutic target. Ongoing research continues to define how PYCARD regulates immune homeostasis and coordinates inflammatory responses across diverse physiological and pathological settings.

NSJ Bioreagents' ASC Antibody / PYCARD provides researchers with a dependable reagent for immunohistochemistry, western blotting, immunofluorescence, flow cytometry, and additional immunodetection applications. Suitable for studies of inflammasome assembly, ASC speck formation, innate immune signaling, and pyroptosis, ASC Antibody / PYCARD enables reliable detection of endogenous PYCARD expression in both normal and diseased tissues while supporting advanced research in immunology, inflammation, infectious disease, and oncology.

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

Application Notes

Optimal dilution of the ASC / PYCARD antibody should be determined by the researcher.

Immunogen

Amino acids DLTDKLVSYYLES were used as the immunogen for this ASC / PYCARD antibody.

Storage

Aliquot and store the ASC / PYCARD antibody at -20oC.

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