

Anti-Asc (Tyr-144), Phosphospecific Antibody

Catalog # AN1644

Product Information

Application	WB, ICC
Primary Accession	Q9EPB4
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	21459

Additional Information

Gene ID	66824
Other Names	Caspase, PYCARD, AIM, ASC, CARD5, TMS1

Target/Specificity	Host- and pathogen-associated cytoplasmic double-stranded DNA triggers the activation of a NALP3-independent inflammasome, which activates caspase-1, leading to maturation of pro-interleukin-1beta and inflammation. Several studies have isolated AIM2 (absent in melanoma 2) as a candidate cytoplasmic-DNA-sensing protein that contains an N-terminal pyrin domain and C-terminal oligonucleotide binding domain. A screen for transcripts induced by interferon-beta identified AIM2 gene expression. AIM2 protein bound double-stranded DNA, recruited the inflammasome adaptor ASC, and localized to ASC containing speckles. AIM2 and ASC form a pyroptosome, which induces pyroptotic cell death mediated by caspase-1. Asc can be phosphorylated at Tyr-144 in a Syk and JNK-dependent manner. This phosphorylation is critical for Asc speck formation and Caspase-1 activation.
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Dilution	WB~~1:1000 ICC~~N/A
Format	Antigen Affinity Purified
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Asc (Tyr-144), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

Host- and pathogen-associated cytoplasmic double-stranded DNA triggers the activation of a NALP3-independent inflammasome, which activates caspase-1, leading to maturation of pro-interleukin-1beta and inflammation. Several studies have isolated AIM2 (absent in melanoma 2) as a candidate cytoplasmic-DNA-sensing protein that contains an N-terminal pyrin domain and C-terminal

oligonucleotide binding domain. A screen for transcripts induced by interferon-beta identified AIM2 gene expression. AIM2 protein bound double-stranded DNA, recruited the inflammasome adaptor ASC, and localized to ASC containing speckles. AIM2 and ASC form a pyroptosome, which induces pyroptotic cell death mediated by caspase-1. Asc can be phosphorylated at Tyr-144 in a Syk and JNK-dependent manner. This phosphorylation is critical for Asc speck formation and Caspase-1 activation.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.