10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-NLRC4 Antibody
Catalog # AN1858

Specification

Anti-NLRC4 Antibody - Product Information

Primary Accession	Q3UP24
Reactivity	**Bovine**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**116749**

Anti-NLRC4 Antibody - Additional Information

Gene ID **268973**

Other Names
CARD12, CLAN1, IPAF, NLR family CARD domain-containing protein 4, NOD-like receptor 4

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-NLRC4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-NLRC4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-NLRC4 Antibody - Images

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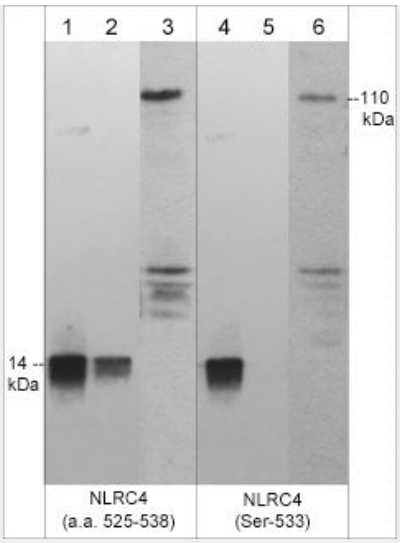

Western blot image of mouse recombinant NLRC4 (Ser-533) phosphorylated peptide (lanes 1 & 4) and dephosphorylated peptide (lanes 2 & 5), as well as human PMA-differentiated THP1 cells (lanes 3 & 6). The blots were probed with rabbit polyclonals anti-NLRC4 (a.a. 525-538) (lanes 1-3) and anti-NLRC4 (Ser-533) phospho-specific (lanes 4-6).

Anti-NLRC4 Antibody - Background

The nucleotide-binding oligomerization domain (NOD)-like receptor (NLR) family is a diverse family of cytoplasmic innate immune receptors that are involved in recognition of pathogen-associated molecular patterns. NLRs are important for pathogen sensing, transcriptional activation of proinflammatory cytokines and activation of inflammatory caspases. NLRC4 (IPAF, CARD12) forms the inflammasome that responds to bacterial flagellin. This inflammasome is activated by NLRC4 oligomerization, NAIP protein binding, and activation of caspase-1 leading to pyroptosis. NLRC4 is phosphorylated on Ser-533 by PKCδ following infection of macrophages with S. typhimurium. Mutant forms of NLRC4 demonstrate that an unphosphorylatable form (S533A) does not activate caspase-1 and pyroptosis in response to S. typhimurium, while a phosphomimetic NLRC4 (S533D) mutant causes rapid macrophage pyroptosis without infection. Thus, PKCδ phosphorylation of NLRC4 (S533) may be a critical event in inflammasome activation and host innate immunity.