

Anti-NLRC4 (Ser-533), Phosphospecific Antibody
Catalog # AN1859**Specification****Anti-NLRC4 (Ser-533), Phosphospecific Antibody - Product Information**

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

Anti-NLRC4 (Ser-533), Phosphospecific Antibody - Additional InformationGene 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 (Ser-533), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

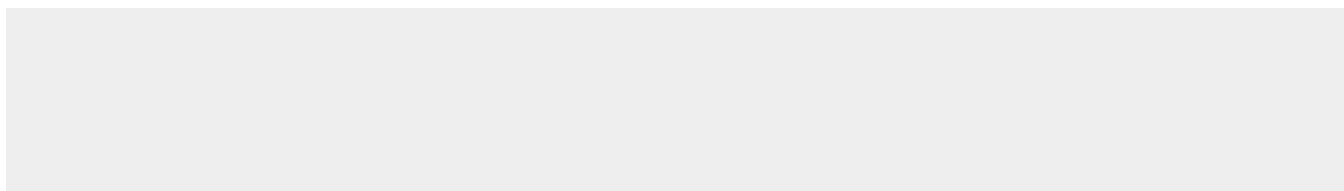
Shipping

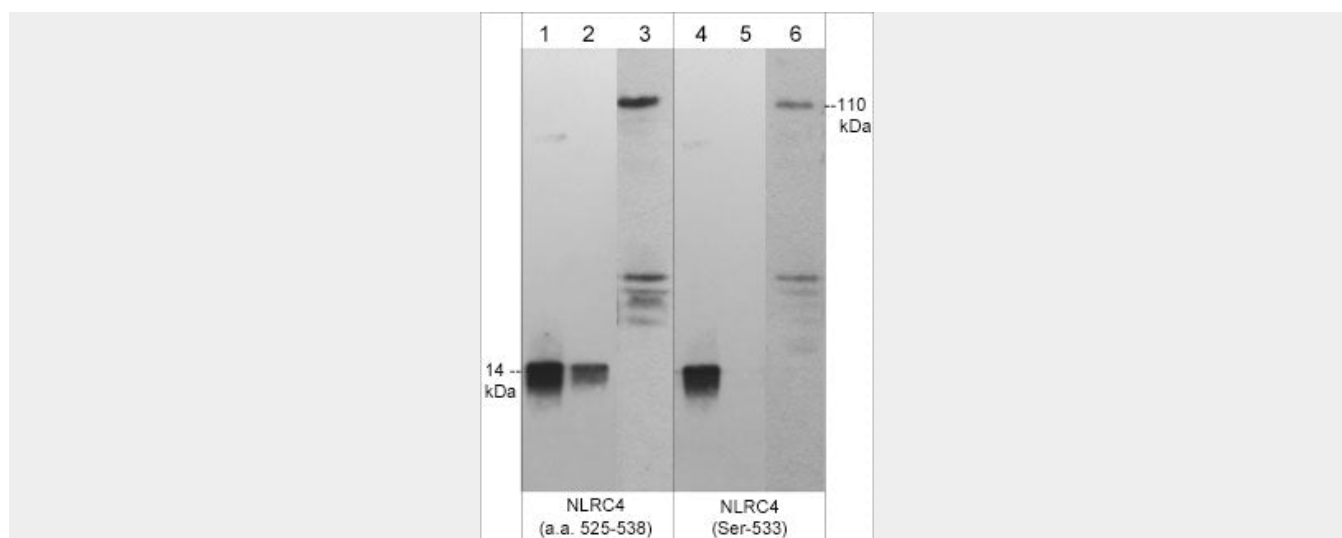
Blue Ice

Anti-NLRC4 (Ser-533), Phosphospecific 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 Cytometry](#)
- [Cell Culture](#)

Anti-NLRC4 (Ser-533), Phosphospecific Antibody - Images



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 (Ser-533), Phosphospecific 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 PKC δ 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, PKC δ phosphorylation of NLRC4 (S533) may be a critical event in inflammasome activation and host innate immunity.