

**Anti-NLRC4 (Ser-533), Phosphospecific Antibody**  
**Catalog # AN1860****Specification****Anti-NLRC4 (Ser-533), Phosphospecific Antibody - Product Information**

Primary Accession	<a href="#">Q3UP24</a>
Reactivity	<b>Bovine</b>
Host	<b>Rat</b>
Clonality	<b>Rat Monoclonal</b>
Isotype	<b>N.T.</b>
Calculated MW	<b>116749</b>

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

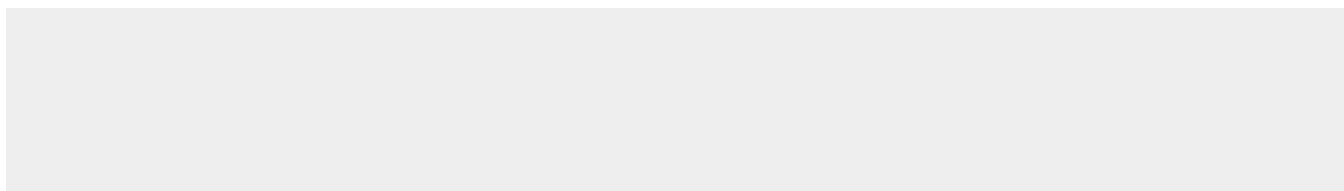
**Shipping**

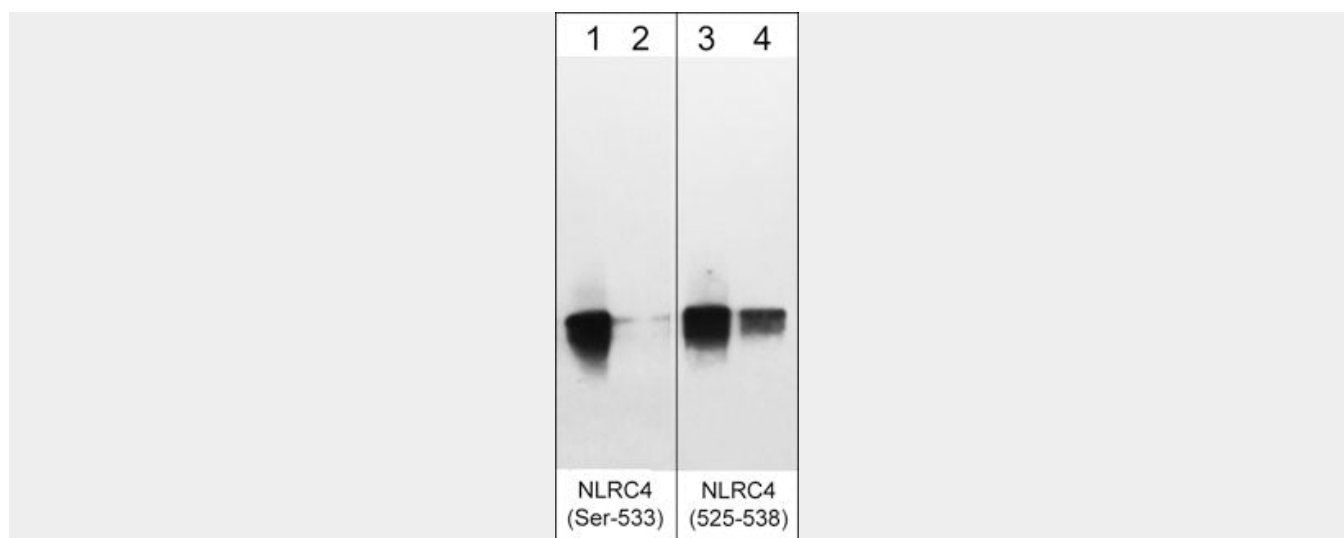
Blue Ice

**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). The blot was dephosphorylated with lambda phosphatase (lanes 2 & 4) then the blot was probed with rat monoclonal anti-NLRC4 (Ser-533) phospho-specific (lanes 1 & 2) and rabbit polyclonal anti-NLRC4 (a.a. 525-538) (lanes 3 & 4).

#### **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 $\delta$  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 $\delta$  phosphorylation of NLRC4 (S533) may be a critical event in inflammasome activation and host innate immunity.