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phospho-NLRC4(Ser-533) Antibody

Purified Rat Monoclonal Antibody
Catalog # AO2202a

Product Information

Application	FC, ICC, E
Primary Accession	Q3UP24
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	9A6A1
Isotype	IgG1
Calculated MW	116749
Description	NLRC4 is a cytosolic NOD (nucleotide binding and oligomerization domain)-like receptor (NLR) that can trigger inflammasome formation in response to bacterial flagellin, an immunodominant antigen in the intestine.
Immunogen	Synthesized peptide of mouse phospho-NLRC4(Ser-533) (AA: 525-538) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	268973
Other Names	NLR family CARD domain-containing protein 4, Caspase recruitment domain-containing protein 12, Ice protease-activating factor, Ipaf, Nlrc4, Card12, Ipaf
Dilution	FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
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	phospho-NLRC4(Ser-533) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Nlrc4
Synonyms	Card12, Ipaf
Function	Key component of inflammasomes that indirectly senses specific proteins

from pathogenic bacteria and fungi and responds by assembling an inflammasome complex that promotes caspase-1 activation, cytokine production and macrophage pyroptosis. The NLRC4 inflammasome is activated as part of the innate immune response to a range of intracellular bacteria. It senses pathogenic proteins of the type III secretion system (T3SS) and type IV secretion system (T4SS) such as flagellin and PrgJ-like rod proteins via the Naip proteins (Naip1, Naip2 or Naip5): specific Naip proteins recognize and bind pathogenic proteins, driving assembly and activation of the NLRC4 inflammasome. The NLRC4 inflammasome senses Gram-negative bacteria such as L.pneumophila and P.aeruginosa, enteric pathogens S.typhimurium (Salmonella) and S.flexneri and fungal pathogen C.albicans. In intestine, the NLRC4 inflammasome is able to discriminate between commensal and pathogenic bacteria and specifically drives production of interleukin-1 beta (IL1B) in response to infection by Salmonella or P.aeruginosa. In case of L.pneumophila infection the inflammasome acts by activating caspase-7.

Cellular Location Cytoplasm, cytosol. Inflammasome

Tissue Location Expressed by intestinal mononuclear phagocytes.

References

1.Mucosal Immunol. 2014 Jul;7(4):775-85. 2.Mucosal Immunol. 2012 May;5(3):288-98.

Images