

Product Name: NALP3 (8Q17) Rabbit Monoclonal Antibody
Catalog #: AMRe14399

Summary

Production Name	NALP3 (8Q17) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,FC,IP
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type
Buffer	preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	NLRP3
Alternative Names	FCU; MWS; FCAS; Cias1; Mmig1; NLRP3; Pypaf1; AII/AVP; AGTAVPRL; Cryopyrin;
Gene ID	114548.0
SwissProt ID	Q96P20.

Application

Dilution Ratio	WB 1:1000, FCM 1:50, IP 1:20
Molecular Weight	118kDa

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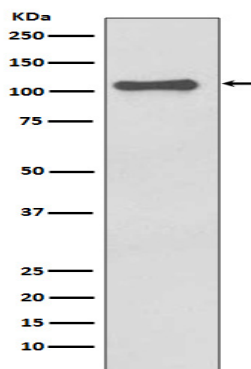


Background

As the sensor component of the NLRP3 inflammasome, plays a crucial role in innate immunity and inflammation. In response to pathogens and other damage-associated signals, initiates the formation of the inflammasome polymeric complex, made of NLRP3, PYCARD and CASP1 (and possibly CASP4 and CASP5). Recruitment of proCASP1 to the inflammasome promotes its activation and CASP1-catalyzed IL1B and IL18 maturation and secretion in the extracellular milieu (PubMed: [28847925](http://www.uniprot.org/citations/28847925), PubMed: [33231615](http://www.uniprot.org/citations/33231615), PubMed: [34133077](http://www.uniprot.org/citations/34133077)). Activation of NLRP3 inflammasome is also required for HMGB1 secretion (PubMed: [22801494](http://www.uniprot.org/citations/22801494)). The active cytokines and HMGB1 stimulate inflammatory responses. Inflammasomes can also induce pyroptosis, an inflammatory form of programmed cell death (PubMed: [34133077](http://www.uniprot.org/citations/34133077)). Under resting conditions, NLRP3 is autoinhibited. NLRP3 activation stimuli include extracellular ATP, reactive oxygen species, K(+) efflux, crystals of monosodium urate or cholesterol, amyloid-beta fibers, environmental or industrial particles and nanoparticles, cytosolic dsRNA, etc. However, it is unclear what constitutes the direct NLRP3 activator. Activation in presence of cytosolic dsRNA is mediated by DHX33 (PubMed: [23871209](http://www.uniprot.org/citations/23871209)). Independently of inflammasome activation, regulates the differentiation of T helper 2 (Th2) cells and has a role in Th2 cell-dependent asthma and tumor growth (By similarity). During Th2 differentiation, required for optimal IRF4 binding to IL4 promoter and for IRF4-dependent IL4 transcription. Binds to the consensus DNA sequence 5'-GRRGGNRGAG-3'. May also participate in the transcription of IL5, IL13, GATA3, CCR3, CCR4 and MAF (By similarity).

Research Area

Image Data



Western blot analysis of NLRP3 expression in SH-SY5Y cell lysate.



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Note

For research use only.