

Product datasheet for **TA384877**

NLRP3 Rabbit Monoclonal Antibody [Clone ID: R07-9E9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R07-9E9
Applications:	WB
Recommended Dilution:	WB: 1/1000
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	Recombinant protein of human NLRP3
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 118 kDa; Observed MW: 118 kDa
Gene Name:	NLR family, pyrin domain containing 3
Database Link:	Entrez Gene 114548 Human Q96P20



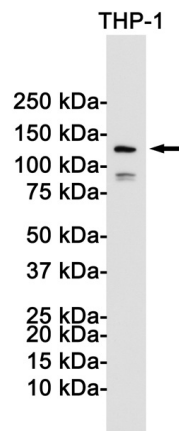
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Background:

Swiss-Prot Acc.Q96P20. 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. Activation of NLRP3 inflammasome is also required for HMGB1 secretion (PubMed:22801494). The active cytokines and HMGB1 stimulate inflammatory responses. Inflammasomes can also induce pyroptosis, an inflammatory form of programmed cell death. 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, etc. However, it is unclear what constitutes the direct NLRP3 activator. 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. 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.

Synonyms:

AGTAVPRL; AII; AII/AVP; AVP; C1orf7; CIAS1; CLR1.1; cryopyrin; FCAS; FCU; FLJ95925; MWS; NALP3; PYPAF1

Product images:

Western blot analysis of NLRP3 in THP-1 lysates using NLRP3 antibody.