ARG43201
anti-NLRP1 / NALP1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes NLRP1 / NALP1
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	NLRP1 / NALP1
Species	Human
Immunogen	Synthetic peptide within aa. 1000-1100 of Human NLRP1 / NALP1 (NP_001028225.1).
Conjugation	Un-conjugated
Alternate Names	NAC; PP1044; DEFCAP; SLEV1; VAMAS1; Nucleotide-binding domain and caspase recruitment domain; DEFCAP-L/S; NALP1; NACHT, LRR and PYD domains-containing protein 1; Death effector filament-forming ced-4-like apoptosis protein; CLR17.1; Caspase recruitment domain-containing protein 7; CIDED; CARD7

Application Instructions

Predict Reactivity Note	Mouse, Rat

Application table

Application	Dilution
ICC/IF	1:50 - 1:200
IHC-P	1:50 - 1:200
WB	1:500 - 1:2000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	SH-SY5Y
Observed Size	~ 152 kDa

Properties

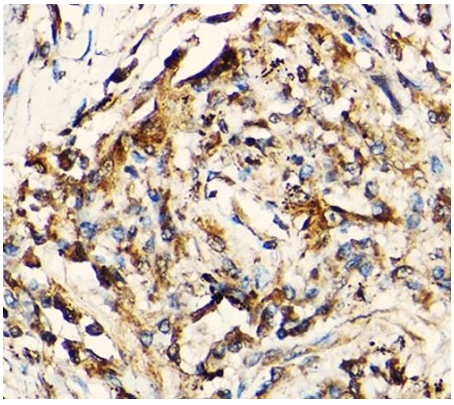
Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

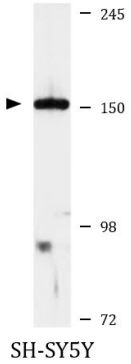
Gene Symbol	NLRP1
Gene Full Name	NLR family, pyrin domain containing 1
Background	This gene encodes a member of the Ced-4 family of apoptosis proteins. Ced-family members contain a caspase recruitment domain (CARD) and are known to be key mediators of programmed cell death. The encoded protein contains a distinct N-terminal pyrin-like motif, which is possibly involved in protein-protein interactions. This protein interacts strongly with caspase 2 and weakly with caspase 9. Overexpression of this gene was demonstrated to induce apoptosis in cells. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene, but the biological validity of some variants has not been determined. [provided by RefSeq, Jul 2008]
Function	As the sensor component of the NLRP1 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 NLRP1, CASP1, and possibly PYCARD. Recruitment of proCASP1 to the inflammasome promotes its activation and CASP1-catalyzed IL1B and IL18 maturation and secretion in the extracellular milieu. Activation of NLRP1 inflammasome is also required for HMGB1 secretion. The active cytokines and HMGB1 stimulate inflammatory responses. Inflammasomes can also induce pyroptosis, an inflammatory form of programmed cell death (PubMed:22665479, PubMed:17418785). May be activated by muramyl dipeptide (MDP), a fragment of bacterial peptidoglycan, in a NOD2-dependent manner (PubMed:18511561). Contrary to its mouse ortholog, not activated by Bacillus anthracis lethal toxin (PubMed:19651869). It is unclear whether isoform 2 is involved in inflammasome formation. It is not cleaved within the FIIND domain, does not assemble into specks, nor promote IL1B release (PubMed:22665479). However, in an vitro cell-free system, it has been shown to be activated by MDP (PubMed:17349957). Binds ATP (PubMed:11113115, PubMed:15212762). [UniProt]
Calculated Mw	166 kDa
Cellular Localization	Cytoplasm, cytosol. Cytoplasm. Inflammasome. Nucleus. Note=Nucleocytoplasmic distribution in lymphoid organs (probably in T-cells) and in neurons. In epithelial cells, predominantly cytoplasmic. [UniProt]

Images



ARG43201 anti-NLRP1 / NALP1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human lung cancer tissue stained with ARG43201 anti-NLRP1 / NALP1 antibody at 1:100 dilution.



ARG43201 anti-NLRP1 / NALP1 antibody WB image

Western blot: 25 µg of SH-SY5Y cell lysate stained with ARG43201 anti-NLRP1 / NALP1 antibody at 1:1000 dilution.