

CARD12 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP57751

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9NPP4
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	116159
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CARD12
Epitope Specificity	401-500/1024
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Cytoplasm, cytosol. Note=Cytoplasmic filaments.
SIMILARITY	Contains 1 CARD domain. Contains 14 LRR (leucine-rich) repeats. Contains 1 NACHT domain.
SUBUNIT	Component of the NLRC4 inflammasome. Homooligomer. Interacts with ASC, pro-caspase-1, NOD2, BCL10 and NALP1 (NAC) by CARD-CARD interaction. Interacts with EIF2AK2/PKR.
Post-translational modifications	Phosphorylated at Ser-533 following infection of macrophages with <i>S.typhimurium</i> (Salmonella). Phosphorylation is essential for NLRC4 inflammasome function to promote caspase-1 activation and pyroptosis. PRKCD phosphorylates Ser-533 in vitro.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	NLR family CARD domain-containing protein 4 is a protein that in humans is encoded by the NLRC4 gene. NLRC4 is best associated with triggering formation of the inflammasome. Unlike NLRP3, certain inflammasome-dependent functions of NLRC4 may be carried out independently of the inflammasome scaffold ASC. Human Ced4 homologs include APAF1, NOD1 (CARD4), and NOD2 (CARD15). These proteins have at least 1 N-terminal CARD domain followed by a centrally located nucleotide-binding domain (NBD or NACHT) and a C-terminal regulatory domain, found only in mammals, that contains either WD40 repeats or leucine-rich repeats (LRRs). CARD12 is a member of the Ced4 family and can induce apoptosis.

Additional Information

Gene ID	58484
Other Names	NLR family CARD domain-containing protein 4, CARD, LRR, and

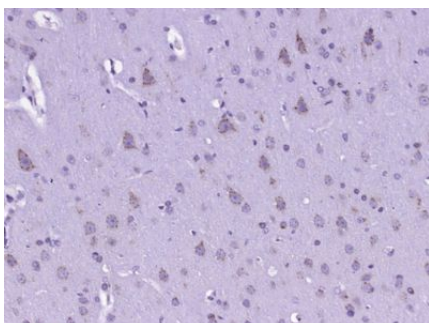
NACHT-containing protein, Clan protein, Caspase recruitment domain-containing protein 12, Ice protease-activating factor, Ipaf, NLRC4, CARD12, CLAN, CLAN1, IPAF

Target/Specificity	Isoform 2 is expressed ubiquitously, although highly expressed in lung and spleen. Isoform 1 is highly expressed in lung, followed by leukocytes especially monocytes, lymph node, colon, brain, prostate, placenta, spleen, bone marrow and fetal liver. Isoform 4 is only detected in brain.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	NLRC4
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 (PubMed: 15107016). The NLRC4 inflammasome is activated as part of the innate immune response to a range of intracellular bacteria (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, cytosol {ECO:0000250 UniProtKB:Q3UP24}. Inflammasome
Tissue Location	Isoform 2 is expressed ubiquitously, although highly expressed in lung and spleen. Isoform 1 is highly expressed in lung, followed by leukocytes especially monocytes, lymph node, colon, brain, prostate, placenta, spleen, bone marrow and fetal liver. Isoform 4 is only detected in brain

Images



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CARD12) Polyclonal Antibody, Unconjugated (AP57751) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.