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CARD11 Rabbit pAb

Catalog # AP99418

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9BXL7
Other Accession	Q9BXL7
Predicted	Rat, Human, Mouse, Chicken, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	133284
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CARD11
Epitope Specificity	301-400/1154
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 CARD domain. Contains 1 guanylate kinase-like domain. Contains 1 PDZ (DHR) domain.
SUBUNIT	Found in a membrane raft complex, at least composed of BCL10, CARD11, DPP4 and IKBKB. CARD11 and BCL10 bind to each other by CARD-CARD interaction. Interacts (via PDZ domain) with DPP4 (via cytoplasmic tail).
Post-translational modifications	Phosphorylation at Ser-559, Ser-644 and Ser-652 by PRKCB and PRKCQ leads to a shift from an inactive to an active form that activates the NF-kappa-B signaling
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene belongs to the membrane-associated guanylate kinase (MAGUK) family, a class of proteins that functions as molecular scaffolds for the assembly of multiprotein complexes at specialized regions of the plasma membrane. This protein is also a member of the CARD protein family, which is defined by carrying a characteristic caspase-associated recruitment domain (CARD). This protein has a domain structure similar to that of CARD14 protein. The CARD domains of both proteins have been shown to specifically interact with BCL10, a protein known to function as a positive regulator of cell apoptosis and NF-kappaB activation. When expressed in cells, this protein activated NF-kappaB and induced the phosphorylation of BCL10.

Additional Information

Gene ID	84433
Other Names	BENTA; BIMP3; CARMA1; IMD11; IMD11A; PPBL; 0610008L17Rik; 2410011D02Rik; CAR11_HUMAN; CARD11; CARD-containing MAGUK protein 1 (Carma 1); CAR11_MOUSE; caspase recruitment domain family member 11; caspase recruitment domain family, member 11; card-maguk protein 1;

	bcl10-interacting maguk protein 3
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	CARD11 {ECO:0000303|PubMed:11278692, ECO:0000312|HGNC:HGNC:16393}
Function	Adapter protein that plays a key role in adaptive immune response by transducing the activation of NF-kappa-B downstream of T- cell receptor (TCR) and B-cell receptor (BCR) engagement (PubMed:11278692, PubMed:11356195, PubMed:12356734). Transduces signals downstream TCR or BCR activation via the formation of a multiprotein complex together with BCL10 and MALT1 that induces NF-kappa-B and MAP kinase p38 (MAPK11, MAPK12, MAPK13 and/or MAPK14) pathways (PubMed:11356195). Upon activation in response to TCR or BCR triggering, CARD11 homooligomerizes to form a nucleating helical template that recruits BCL10 via CARD-CARD interaction, thereby promoting polymerization of BCL10 and subsequent recruitment of MALT1: this leads to I-kappa-B kinase (IKK) phosphorylation and degradation, and release of NF-kappa-B proteins for nuclear translocation (PubMed:24074955). Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner (PubMed:17287217). Promotes linear ubiquitination of BCL10 by promoting the targeting of BCL10 to RNF31/HOIP (PubMed:27777308). Stimulates the phosphorylation of BCL10 (PubMed:11356195). Also activates the TORC1 signaling pathway (PubMed:28628108).
Cellular Location	Cytoplasm. Membrane raft. Note=Colocalized with DPP4 in membrane rafts.
Tissue Location	Detected in adult peripheral blood leukocytes, thymus, spleen and liver. Also found in promyelocytic leukemia HL-60 cells, chronic myelogenous leukemia K-562 cells, Burkitt's lymphoma Raji cells and colorectal adenocarcinoma SW480 cells. Not detected in HeLaS3, MOLT-4, A-549 and G431 cells.

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