

CARD11 Antibody

Rabbit mAb Catalog # AP92397

Product Information

Application	WB, IF, ICC
Primary Accession	<u>Q9BXL7</u>
Reactivity	Human, Mouse
Clonality	Monoclonal
Other Names	CARD11; CARMA1; Carma 1; BIMP3;
lsotype	Rabbit IgG
Host	Rabbit
Calculated MW	133284

Additional Information

Dilution Purification Immunogen Description	WB 1:500~1:2000 ICC/IF 1:50~1:200 Affinity-chromatography A synthesized peptide derived from human CARD11 Involved in the costimulatory signal essential for T-cell receptor
Description	(TCR)-mediated T-cell activation. Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner. Activates NF-kappa-B via BCL10 and IKK. Stimulates the phosphorylation of BCL10.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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: <u>11278692</u> , PubMed: <u>11356195</u> , PubMed: <u>12356734</u>). 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: <u>11356195</u>). 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: <u>24074955</u>). Its binding to DPP4 induces T-cell

	proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner (PubMed: <u>17287217</u>). Promotes linear ubiquitination of BCL10 by promoting the targeting of BCL10 to RNF31/HOIP (PubMed: <u>27777308</u>). Stimulates the phosphorylation of BCL10 (PubMed: <u>11356195</u>). Also activates the TORC1 signaling pathway (PubMed: <u>28628108</u>).
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.

Images



Western blot analysis of CARD11 expression in K562 cell lysate.

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