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CARMA3 Antibody

Catalog # ASC10209

Product Information

Application	E, IHC-P
Primary Accession	Q9BWT7
Other Accession	NP_055365, 51093861
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	115931
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CARMA3 antibody can be used for detection of CARMA3 by immunohistochemistry at 5 □g/mL.

Additional Information

Gene ID	29775
Other Names	CARMA3 Antibody: BIMP1, CARMA3, Caspase recruitment domain-containing protein 10, CARD-containing MAGUK protein 3, Carma 3, caspase recruitment domain family, member 10
Target/Specificity	CARD10; CARMA3 antibody is human specific. At least three isoforms of CARMA3 are known to exist; this antibody will only detect isoform 1. CARMA3 antibody is predicted not to cross-react with other CARMA proteins.
Reconstitution & Storage	CARMA3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CARMA3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CARD10
Synonyms	CARMA3
Function	Scaffold protein that plays an important role in mediating the activation of NF-kappa-B via BCL10 or EGFR.
Cellular Location	Cytoplasm.

Tissue Location	Detected in adult heart, kidney and liver; lower levels in intestine, placenta, muscle and lung. Also found in fetal lung, liver and kidney

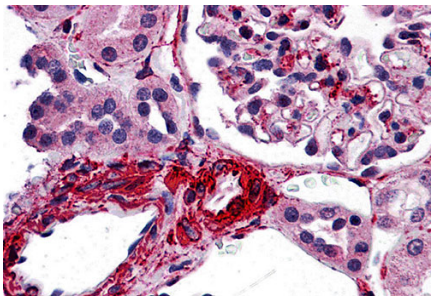
Background

CARMA3 Antibody: CARMA proteins belong to the membrane-associated guanylate kinase-like (MAGUK) family of proteins that can function as molecular scaffolds that assist assembly of signal transduction molecules. CARMA1, CARMA2, and CARMA3 share high degrees of sequence and functional homology, but their tissue-specific distribution suggests that they serve distinct biological functions in different cell types. As with CARMA1, the CARD domain of CARMA3 has been shown to specifically interact with BCL10, a protein known to function as a positive regulator of cell apoptosis and NF-κB activation. When expressed in cells, this protein binds to BCL10 and activates NF-κB Recent experiments have shown that CARMA3 is required for EGF-induced NF-κB activation and contributes to tumor growth in vivo, suggesting that CARMA3 may serve as a new therapeutic target for the treatment of EGFR-driven tumors.

References

Fanning AS and Anderson JM. Protein modules as organizers of membrane structure. Curr. Opin. Cell Biol. 1999; 11:432-9.
Gaide O, Martinon F, Michau O, et al. Carma1, 1 CARD-containing binding partner of Bcl10, induces Bcl10 phosphorylation and NF-kappa B activation. FEBS Lett. 2001; 496:121-7.
Wang L, Guo Y, Huang WJ, et al. Card10 is a novel caspase recruitment domain/membrane-associated guanylate kinase family member that interacts with BCL10 and activates NF-kappaB. J. Biol. Chem. 2001; 276:21405-9.
Jiang T, Grabiner B, Zhu Y, et al. CARMA3 is crucial for EGFR-induced activation of NF-kappaB and tumor progression. Cancer Res. 2011; 71:2183-92.

Images



Immunohistochemistry of CARMA3 in human kidney tissue with CARMA3 antibody at 5 µg/ml