

CARD9 Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	62	Rabbit	#Q9H257	64170

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

CARD9 Antibody recognizes endogenous levels of total CARD9 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human CARD9 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

CARD9 is a caspase recruitment domain (CARD)-containing adaptor protein expressed by myeloid cells (1,2). It is required for antifungal immunity downstream of pathogen detection by C-type lectin receptors (CLRs) such as Dectin-1 (3,4). Recognition of carbohydrates on fungal cell walls by CLRs leads to activation of the tyrosine kinase Syk, followed by activation of PKCδ (5,6). PKCδ phosphorylates CARD9, enabling the assembly of a complex containing CARD9 and Bcl10 (6). This complex activates NF-κB, resulting in upregulation of inflammatory cytokines important for initiation of adaptive immunity (3,4,6,7). CARD9 was also shown to be important for the induction of IL-1β, downstream of the viral nucleic acid sensor RIG-I, as well as for the generation of reactive oxygen species important for bacterial killing by macrophages (2,8).

Background References

- Bertin, J. et al. (2000) *J Biol Chem* 275, 41082-6.
- Hsu, Y.M. et al. (2007) *Nat Immunol* 8, 198-205.
- Gross, O. et al. (2006) *Nature* 442, 651-6.
- Bi, L. et al. (2010) *J Biol Chem* 285, 25969-77.
- Rogers, N.C. et al. (2005) *Immunity* 22, 507-17.
- Strasser, D. et al. (2012) *Immunity* 36, 32-42.
- LeibundGut-Landmann, S. et al. (2007) *Nat Immunol* 8, 630-8.
- Wu, W. et al. (2009) *Nat Immunol* 10, 1208-14.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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