

#12283 Store at -20C

## CARD9 Antibody

Cell Signaling  
TECHNOLOGY®Orders: 877-616-CELL (2355)  
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	M	Endogenous	64	Rabbit	#A2AIV8	332579

## Product Usage Information

## Application

Western Blotting

## Dilution

1:1000

Immunoprecipitation

1:100

## 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 surrounding His478 of mouse 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

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

**WB:** Western Blotting **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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