

CARD9 Antibody (Mouse Preferred)



✓ 100 µl
(10 western blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

New 12/12

For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #64170
Swiss-Prot Acc. #Q9H257

Applications W, IP Endogenous	Species Cross-Reactivity* M	Molecular Wt. 64 kDa	Source Rabbit**
-------------------------------------	--------------------------------	-------------------------	--------------------

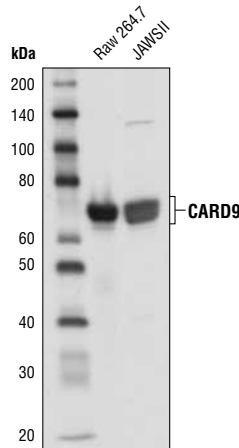
Background: CARD9 is a caspase recruitment domain (CARD)-containing adaptor protein expressed by myeloid cells (1,2). It is required for antifungal immunity downstream of pathogen detection by C-type lectin receptors (CLRs) such as Dectin-1 (3,4). Recognition of carbohydrates on fungal cell walls by CLRs leads to activation of the tyrosine kinase Syk, followed by activation of PKC δ (5,6). PKC δ phosphorylates CARD9, enabling the assembly of a complex containing CARD9 and Bcl10 (6). This complex activates NF- κ B, 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-1 β , 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).

Specificity/Sensitivity: CARD9 Antibody (Mouse Preferred) recognizes endogenous levels of total CARD9 protein.

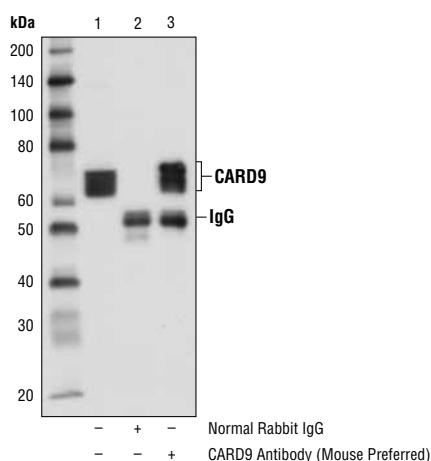
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His478 of mouse CARD9 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background 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.



Western blot analysis of extracts from Raw 264.7 and JAWSII cells using CARD9 Antibody (Mouse Preferred).



Immunoprecipitation of CARD9 from Raw 264.7 cell extracts, using Normal Rabbit IgG #2729 (lane 2) or CARD9 Antibody (Mouse Preferred) (lane 3). Lane 1 is 10% input. Western blot analysis was performed using CARD9 Antibody (Mouse Preferred).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting 1:1000
Immunoprecipitation 1:100

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

IMPORTANT: For western blots, incubate membrane with diluted 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 IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.