

CARD 9 (h): 293 Lysate: sc-174094

BACKGROUND

Membrane-associated guanylate kinase (MAGUK) family members localize to the plasma membrane and function as molecular scaffolds for the assembly of multi-protein complexes. The MAGUK family includes several mammalian proteins related to the *Drosophila* tumor suppressor discs-large (dlg) gene product such as postsynaptic proteins, GKAPs, the tight junction associated proteins (ZO-1-3) and the caspase-associated recruitment domain (CARD) proteins, CARD 6, CARD 8-12 and CARD 14. CARD 9 is the main transducer of Dectin-1 signals that consist of mediated myeloid cell activation, cytokine production and innate anti-fungal immunity. Dectin-1 is the main mammalian receptor that recognizes the fungal component zymosan. CARD 9 self-associates and has coiled-coil motifs that may function as oligomerization domains. Bcl10 interacts with CARD 9 and regulates the zymosan induced NF κ B activation. Overexpression of CARD 9 correlates with the development of gastric B cell lymphoma.

REFERENCES

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- Wang, L., et al. 2001. CARD 10 is a novel caspase recruitment domain/membrane-associated guanylate kinase family member that interacts with Bcl10 and activates NF κ B. *J. Biol. Chem.* 276: 21405-21409.
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- Kono, T., et al. 2003. Molecular cloning and expression analysis of a novel caspase recruitment domain protein (CARD) in common carp *Cyprinus carpio* L. *Gene* 309: 57-64.
- Nakamura, S., et al. 2005. Overexpression of caspase recruitment domain (CARD) membrane-associated guanylate kinase 1 (CARMA1) and CARD 9 in primary gastric B cell lymphoma. *Cancer* 104: 1885-1893.
- Gross, O., et al. 2006. CARD 9 controls a non-TLR signalling pathway for innate anti-fungal immunity. *Nature* 442: 651-656.
- Zhou, Y., et al. 2006. Distinct comparative genomic hybridisation profiles in gastric mucosa-associated lymphoid tissue lymphomas with and without t(11;18)(q21;q21). *Br. J. Haematol.* 133: 35-42.

CHROMOSOMAL LOCATION

Genetic locus: CARD9 (human) mapping to 9q34.3.

PRODUCT

CARD 9 (h): 293 Lysate represents a lysate of human CARD 9 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

CARD 9 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive CARD 9 antibodies. Recommended use: 10-20 μ l per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

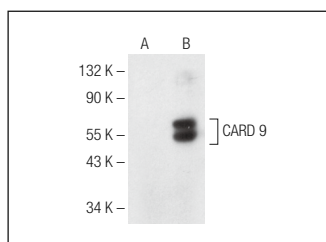
CARD 9 (C-2): sc-374007 is recommended as a positive control antibody for Western Blot analysis of enhanced human CARD 9 expression in CARD 9 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

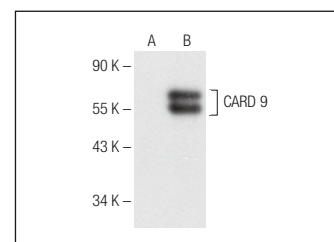
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



CARD 9 (C-2): sc-374007. Western blot analysis of CARD 9 expression in non-transfected: sc-117760 (A) and human CARD 9 transfected: sc-174094 (B) 293 whole cell lysates.



CARD 9 (A-8): sc-374569. Western blot analysis of CARD 9 expression in non-transfected: sc-110760 (A) and human CARD 9 transfected: sc-174094 (B) 293 whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.