

CARD 9 (F-4): sc-365545

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 NFκB activation. Overexpression of CARD 9 correlates with the development of gastric B cell lymphoma.

REFERENCES

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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.
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- Gross, O., et al. 2006. CARD 9 controls a non-TLR signalling pathway for innate anti-fungal immunity. *Nature* 442: 651-656.
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CHROMOSOMAL LOCATION

Genetic locus: CARD9 (human) mapping to 9q34.3; Card9 (mouse) mapping to 2 A3.

SOURCE

CARD 9 (F-4) is a mouse monoclonal antibody raised against amino acids 98-187 mapping within an internal region of CARD 9 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CARD 9 (F-4) is recommended for detection of CARD 9 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CARD 9 siRNA (h): sc-60333, CARD 9 siRNA (m): sc-60334, CARD 9 shRNA Plasmid (h): sc-60333-SH, CARD 9 shRNA Plasmid (m): sc-60334-SH, CARD 9 shRNA (h) Lentiviral Particles: sc-60333-V and CARD 9 shRNA (m) Lentiviral Particles: sc-60334-V.

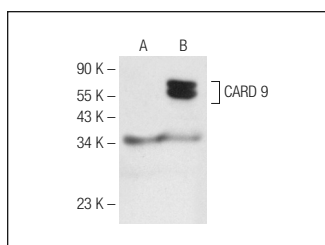
Molecular Weight of CARD 9: 62 kDa.

Positive Controls: CARD 9 (h): 293 Lysate: sc-174094.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CARD 9 (F-4): sc-365545. 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.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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.