# CARD 10 (H-84): sc-134541



The Power to Question

#### **BACKGROUND**

Membrane-associated guanylate kinase (MAGUK) family members function as molecular scaffolds for the assembly of multiprotein complexes localizing to the plasma membrane. Several mammalian proteins related to the  $\mbox{\it Drosophila}$  tumor suppressor discs-large (dlg) gene product belong to the MAGUK family, including the caspase recruitment domain (CARD) protein family with the exception of CARD 9. The CARD domain consists of six or seven antiparallel  $\alpha$  helices. CARD family members participate in apoptosis signaling through highly specific protein-protein homophilic interactions. CARD 10 (also designated CARD-containing MAGUK protein 3 or carma 3) interacts with Bcl10 to activate NFxB. CARD10 is expressed in a variety of adult and fetal tissues, including heart, kidney and liver, and in multiple cancer cell lines.

#### **REFERENCES**

- Dimitratos, S.D., Woods, D.F. and Bryant, P.J. 1997. Camguk, Lin-2 and CASK: novel membrane-associated guanylate kinase homologs that also contain CaM kinase domains. Mech. Dev. 63: 127-130.
- 2. Bredt, D.S. 2000. Reeling CASK into the nucleus. Nature 404: 241-242.
- Hsueh, Y.P., Wang, T.F., Yang, F.C. and Sheng, M. 2000. Nuclear translocation and transcription regulation by the membrane-associated guanylate kinase CASK/LIN-2. Nature 404: 298-302.
- Wang, L., Guo, Y., Huang, W.J., Ke, X., Poyet, J.L., Manji, G.A., Merriam, S., Glucksmann, M.A., DiStefano, P.S., Alnemri, E.S. and Bertin, J. 2001. CARD 10 is a novel caspase recruitment domain/membrane-associated guanylate kinase family member that interacts with Bcl10 and activates NFκB, J. Biol. Chem. 276: 21405-21409.
- Gaide, O., Martinon, F., Micheau, O., Bonnet, D., Thome, M. and Tschopp, J. 2001. Carma 1, a CARD-containing binding partner of Bcl10, induces Bcl10 phosphorylation and NFκB activation. FEBS Lett. 496: 121-127.
- 6. Stilo, R., Liguoro, D., Di Jeso, B., Formisano, S., Consiglio, E., Leonardi, A. and Vito, P. 2004. Physical and functional interaction of Carma 1 and Carma 3 with  $l\kappa$  kinase  $\gamma$ -NF $\kappa$ B essential modulator. J. Biol. Chem. 279: 34323-34331.

## CHROMOSOMAL LOCATION

Genetic locus: CARD10 (human) mapping to 22q13.1; Card10 (mouse) mapping to 15 E1.

#### **SOURCE**

CARD 10 (H-84) is a rabbit polyclonal antibody raised against amino acids 837-920 mapping near the C-terminus of CARD 10 of human origin.

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **STORAGE**

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

#### **APPLICATIONS**

CARD 10 (H-84) is recommended for detection of CARD 10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

CARD 10 (H-84) is also recommended for detection of CARD 10 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for CARD 10 siRNA (h): sc-60326, CARD 10 siRNA (m): sc-60327, CARD 10 shRNA Plasmid (h): sc-60326-SH, CARD 10 shRNA Plasmid (m): sc-60327-SH, CARD 10 shRNA (h) Lentiviral Particles: sc-60326-V and CARD 10 shRNA (m) Lentiviral Particles: sc-60327-V.

Molecular Weight of CARD 10: 116 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### **RESEARCH USE**

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

## **PROTOCOLS**

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



Try **CARD 10 (B-4): sc-271849**, our highly recommended monoclonal alternative to CARD 10 (H-84).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Furope +00800 4573 8000 49 6221 4503 0 www.scbt.com