SANTA CRUZ BIOTECHNOLOGY, INC.

CARD 10 (B-4): sc-271849

SANTA CRUZ BIOTECHNOLOGY

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 *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 α 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 NFκB. CARD 10 is expressed in a variety of adult and fetal tissues, including heart, kidney and liver, and in multiple cancer cell lines.

REFERENCES

1. Dimitratos, S.D., et al. 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.
3. Hsueh, Y.P., et al. 2000. Nuclear translocation and transcription regulation by the membrane-associated guanylate kinase CASK/LIN-2. Nature 404: 298-302.
4. 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 NFκB. J. Biol. Chem. 276: 21405-21409.
5. Gaide, O., et al. 2001. Carma 1, a CARD-containing binding partner of Bcl10, induces Bcl10 phosphorylation and NFκB activation. FEBS Lett. 496: 121-127.

CHROMOSOMAL LOCATION

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

SOURCE

CARD 10 (B-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 857-877 near the C-terminus of CARD 10 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271849 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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 (B-4) is recommended for detection of CARD 10 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).

CARD 10 (B-4) is also recommended for detection of CARD 10 in additional species, including porcine.

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.

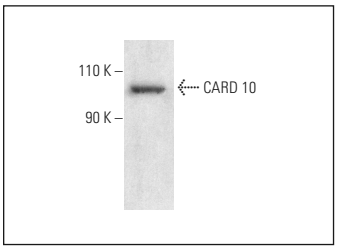
Molecular Weight of CARD 10: 116 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or U-87 MG cell lysate: sc-2411.

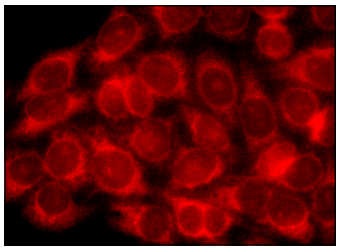
RECOMMENDED SUPPORT REAGENTS

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 10 (B-4): sc-271849. Western blot analysis of CARD 10 expression in U-87 MG whole cell lysate. Detection reagent used: m-IgG_3 BP-HRP: sc-533670.



CARD 10 (B-4): sc-271849. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Causton, B., et al. 2018. CARMA3 mediates allergic lung inflammation in response to *Alternaria alternata*. Am. J. Respir. Cell Mol. Biol. 59: 684-694.

RESEARCH USE

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