

CARD 6 (N-15): sc-49403

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 6 is a 311 amino acid protein that associates with microtubules and acts as a selective mediator of NF κ B activation. CARD 6 is structurally and functionally related to the superfamily of interferon (IFN)-inducible GTPases, a group that comprises host defense proteins which mediate cell-autonomous immunity. RICK, the receptor-interacting protein (RIP)-like interacting caspase-like apoptosis regulatory protein kinase, interacts with CARD 6 and targets it to aggresomes, regions of the cell where protein aggregates collect.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609986. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Stehlik, C., et al. 2003. CARD 6 is a modulator of NF κ B activation pathways. J. Biol. Chem. 278: 31941-31949.
3. Carson, S.D., 2004. Coxsackievirus and adenovirus receptor (CAR) is modified and shed in membrane vesicles. Biochemistry 43: 8136-8142.
4. Hong, G.S. and Jung, Y.K. 2005. Caspase recruitment domain (CARD) as a bi-functional switch of caspase regulation and NF κ B signals. J. Biochem. Mol. Biol. 35: 19-23.
5. Dufner, A., et al. 2006. Caspase recruitment domain protein 6 is a microtubule-interacting protein that positively modulates NF κ B activation. Proc. Natl. Acad. Sci. USA 103: 988-993.
6. Chen, Y.R. and Clark, A.C. 2006. Substitutions of prolines examine their role in kinetic trap formation of the caspase recruitment domain (CARD) of RICK. Protein Sci. 15:395-409.

CHROMOSOMAL LOCATION

Genetic locus: CARD6 (human) mapping to 5p13.1; Card6 (mouse) mapping to 15 A1.

SOURCE

CARD 6 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CARD 6 of human origin.

STORAGE

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

PROTOCOLS

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49403 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CARD 6 (N-15) is recommended for detection of CARD 6 and CINCIN1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Molecular Weight of CARD 6: 116 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

RESEARCH USE

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