



CARD 14 (K-14): sc-49398

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 14 is a 1,004 amino acid protein consisting of an N-terminal CARD domain, a central coiled-coil domain and a C-terminal tripartite domain comprised of a PDZ domain, an Src homology 3 domain and a GUK domain with homology to guanylate kinase. CARD 14 is expressed in the placenta where it positively regulates apoptosis. CARD 14 also controls NFκB activation by phosphorylating Bcl10, a signaling protein that activates NFκB through the IκB kinase complex. Epigallocatechin-3-gallate (EGCG) is a polyphenol that induces the expression of CARD 14.

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 NFκB. *J. Biol. Chem.* 276: 21405-21409.
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- Shammas, M.A., et al. 2006. Specific killing of multiple myeloma cells by (-)- epigallocatechin-3-gallate extracted from green tea: biological activity and therapeutic implications. *Blood* 108: 2804-2810

CHROMOSOMAL LOCATION

Genetic locus: CARD14 (human) mapping to 17q25; Card14 (mouse) mapping to 11 E2.

SOURCE

CARD 14 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CARD 14 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.

PRODUCT

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

Blocking peptide available for competition studies, sc-49398 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CARD 14 (K-14) is recommended for detection of CARD 14 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).

Suitable for use as control antibody for CARD 14 siRNA (h): sc-60330 and CARD 14 siRNA (m): sc-60331.

Molecular Weight of CARD 14: 113 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.

PROTOCOLS

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