SANTA CRUZ BIOTECHNOLOGY, INC.

CARD 8 (A-18): sc-68154



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, such as postsynaptic proteins, GKAPs, the tight junction associated proteins (Z0-1-3), and the caspase-associated recruitment domain (CARD) proteins, all of which are related to the *Drosophila* tumor suppressor discs-large (dlg) gene product. CARD 8, also designated DACAR, NDPP1, TUCAN or CAR DINAL, is a 431 amino acid protein that is expressed in the lung, ovary, testis and placenta. It regulates cellular responses controlled by NF κ B activation and may play a key role in apoptosis and chronic inflammatory disorders. CARD 8 binds to caspase-1 and negatively regulates its activity. CARD 8 interact with IKK_Y and FHL-2.

REFERENCES

- Bouchier-Hayes, L., Conroy, H., Egan, H., Adrain, C., Creagh, E.M., MacFarlane, M. and Martin, S.J. 2001. CARDINAL, a novel caspase recruitment domain protein, is an inhibitor of multiple NFκB activation pathways. J. Biol. Chem. 276: 44069-44077.
- Stilo, R., Leonardi, A., Formisano, L., Di Jeso, B., Vito, P. and Liguoro, D. 2002. TUCAN/CARDINAL and DRAL participate in a common pathway for modulation of NFκB activation. FEBS Lett. 521: 165-169.
- Bouchier-Hayes, L. and Martin, S.J. 2004. CARDINAL roles in apoptosis and NFκB activation. Vitam. Horm. 67: 133-147.
- 4. Damiano, J.S. and Reed, J.C. 2004. CARD proteins as therapeutic targets in cancer. Curr. Drug Targets 5: 367-374.
- Checinska, A., Giaccone, G., Hoogeland, B.S., Ferreira, C.G., Rodriguez, J.A. and Kruyt, F.A. 2006. TUCAN/CARDINAL/CARD 8 and apoptosis resistance in non-small cell lung cancer cells. BMC Cancer 6: 166-166.
- McGovern, D.P., Butler, H., Ahmad, T., Paolucci, M., van Heel, D.A., Negoro, K., Hysi, P., Ragoussis, J., Travis, S.P., Cardon, L.R. and Jewell, D.P. 2006. TUCAN (CARD 8) genetic variants and inflammatory bowel disease. Gastroenterology 131: 1190-1196.
- Checinska, A., Oudejans, J.J., Span, S.W., Rodriguez, J.A., Kruyt, F.A. and Giaccone, G. 2006. The expression of TUCAN, an inhibitor of apoptosis protein, in patients with advanced non-small cell lung cancer treated with chemotherapy. Anticancer Res. 26: 3819-3824.
- Henckaerts, L., Pierik, M., Joossens, M., Ferrante, M., Rutgeerts, P. and Vermeire, S. 2007. Mutations in pattern recognition receptor genes modulate seroreactivity to microbial antigens in patients with inflammatory bowel disease. Gut 56: 1536-1542.
- 9. Fontalba, A., Martinez-Taboada, V., Gutierrez, O., Pipaon, C., Benito, N., Balsa, A., Blanco, R. and Fernandez-Luna, J.L. 2007. Deficiency of the NF κ B inhibitor caspase activating and recruitment domain 8 in patients with rheumatoid arthritis is associated with disease severity. J. Immunol. 179: 4867-4873.

CHROMOSOMAL LOCATION

Genetic locus: CARD8 (human) mapping to 19q13.33.

SOURCE

CARD 8 (A-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CARD 8 of human origin.

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-68154 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CARD 8 (A-18) is recommended for detection of CARD 8 isoforms 1, 2 and 3 of 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).

CARD 8 (A-18) is also recommended for detection of CARD 8 isoforms 1, 2 and 3 in additional species, including canine.

Suitable for use as control antibody for CARD 8 siRNA (h): sc-105180, CARD 8 shRNA Plasmid (h): sc-105180-SH and CARD 8 shRNA (h) Lentiviral Particles: sc-105180-V.

Molecular Weight of CARD 8: 49 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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) Immunofluo-rescence: 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.

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.

MONOS Satisfation Guaranteed

Try **CARD 8 (2108C2a): sc-81213**, our highly recommended monoclonal alternative to CARD 8 (A-18).