SANTA CRUZ BIOTECHNOLOGY, INC.

CHAD (Q-14): sc-161010

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CHAD, also known as chondroadherin, cartilage leucine-rich protein or SLRR4A, is a 359 amino acid cartilage matrix protein that plays a significant role in the regulation of chondrocyte growth and proliferation. CHAD is implicated in the adhesion of fibroblasts, osteoblasts and chondrocytes, which is mediated by interactions with Integrin $\alpha 2/\beta 1$. Existing primarily in monomeric form, CHAD is a secreted protein that localizes to the extracellular matrix and belongs to the small leucine-rich proteoglycan (SLRP) family and class IV subfamily. CHAD contains 11 LRR (leucine-rich) repeats and is present in chondrocytes of all ages. The gene encoding CHAD maps to human chromosome 17q21.33 and mouse chromosome 11 D.

REFERENCES

1. Larsson, T., Sommarin, Y., Paulsson, M., Antonsson, P., Hedbom, E., Wendel, M. and Heinegard, D. 1991. Cartilage matrix proteins. A basic 36-kDa protein with a restricted distribution to cartilage and bone. J. Biol. Chem. 266: 20428-20433.
2. Grover, J., Chen, X.N., Korenberg, J.R. and Roughley, P.J. 1997. The structure and chromosome location of the human chondroadherin gene (CHAD). Genomics 45: 379-385.
3. Camper, L., Heinegârd, D. and Lundgren-Akerlund, E. 1997. Integrin $\alpha 2\beta 1$ is a receptor for the cartilage matrix protein chondroadherin. J. Cell Biol. 138: 1159-1167.
4. Landgren, C., Beier, D.R., Fässler, R., Heinegαrd, D. and Sommarin, Y. 1998. The mouse chondroadherin gene: characterization and chromosomal localization. Genomics 47: 84-91.
5. Mansson, B., Wenglén, C., Mörgelin, M., Saxne, T. and Heinegard, D. 2001. Association of chondroadherin with collagen type II. J. Biol. Chem. 276: 32883-32888.
6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 602178. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: CHAD (human) mapping to 17q21.33; Chad (mouse) mapping to 11 D.

SOURCE

CHAD (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CHAD 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-161010 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

CHAD (Q-14) is recommended for detection of CHAD 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); non cross-reactive with CHADL.

Suitable for use as control antibody for CHAD siRNA (h): sc-93796, CHAD siRNA (m): sc-142312, CHAD shRNA Plasmid (h): sc-93796-SH, CHAD shRNA Plasmid (m): sc-142312-SH, CHAD shRNA (h) Lentiviral Particles: sc-93796-V and CHAD shRNA (m) Lentiviral Particles: sc-142312-V.

Molecular Weight of CHAD: 40 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.

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.