

# CHAD (D-12): sc-161009

## 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

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3. Camper, L., Heinegård, 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., Heinegard, 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<sup>™</sup>. 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 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CHAD of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-161009 P, (100  $\mu$ g 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 (D-12) 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.

CHAD (D-12) is also recommended for detection of CHAD in additional species, including equine, canine, bovine and porcine.

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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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](http://www.scbt.com) or our catalog for detailed protocols and support products.