

# CHAD (Y-24): sc-133454

## 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

- Larsson, T., et al. 1991. Cartilage matrix proteins. A basic 36 kDa protein with a restricted distribution to cartilage and bone. *J. Biol. Chem.* 266: 20428-20433.
- Grover, J., et al. 1997. The structure and chromosome location of the human chondroadherin gene (CHAD). *Genomics* 45: 379-385.
- Camper, L., et al. 1997. Integrin  $\alpha 2\beta 1$  is a receptor for the cartilage matrix protein chondroadherin. *J. Cell Biol.* 138: 1159-1167.
- Landgren, C., et al. 1998. The mouse chondroadherin gene: characterization and chromosomal localization. *Genomics* 47: 84-91.
- Mansson, B., et al. 2001. Association of chondroadherin with collagen type II. *J. Biol. Chem.* 276: 32883-32888.
- 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 (Y-24) is an affinity purified rabbit polyclonal antibody raised against synthetic CHAD peptide of human origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG in 500  $\mu$ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## 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.

## APPLICATIONS

CHAD (Y-24) 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), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

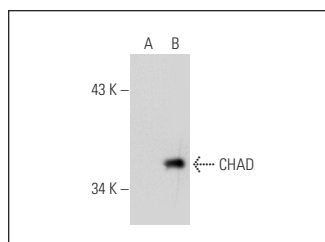
Molecular Weight of CHAD: 40 kDa.

Positive Controls: CHAD (m): 293T Lysate: sc-125129 or Hep G2 cell lysate: sc-2227.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



CHAD (Y-24): sc-133454. Western blot analysis of CHAD expression in non-transfected: sc-117752 (A) and mouse CHAD transfected: sc-125129 (B) 293T whole cell lysates.

## RESEARCH USE

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