

CHADL (N-15): sc-86528

BACKGROUND

Members of the small leucine-rich proteoglycan (SLRP) family are mostly extracellular proteins that function upstream of multiple signaling cascades. They affect intracellular phosphorylation and modulate distinct pathways, such as those driven by toll-like receptors, TGF β and receptor tyrosine kinases. As a member of the SLRP family, CHADL (chondroadherin-like protein) is a 762 amino acid protein containing 21 LRR (leucine-rich) repeats, which promote protein-ligand interactions. Chondroadherin, a closely related protein, promotes attachment of chondrocytes, osteoblasts and fibroblasts and also plays an important role in the regulation of chondrocyte proliferation and growth. CHADL is a secreted protein that is located in the extracellular space. There are two isoforms of CHADL that exist as a result of alternative splicing events.

REFERENCES

1. 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.
2. Camper, L., Heinegard, D. and Lundgren-Akerlund, E. 1997. Integrin α 2/ β 1 is a receptor for the cartilage matrix protein chondroadherin. *J. Cell Biol.* 138: 1159-1167.
3. 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.
4. Mansson, B., Wenglen, C., Mörgelin, M., Saxne, T. and Heinegard, D. 2001. Association of chondroadherin with collagen type II. *J. Biol. Chem.* 276: 32883-32888.
5. Wiberg, C., Heinegard, D., Wenglen, C., Timpl, R. and Mörgelin, M. 2002. Biglycan organizes collagen VI into hexagonal-like networks resembling tissue structures. *J. Biol. Chem.* 277: 49120-49126.
6. Wang, W., Yang, Y., Li, L. and Shi, Y. 2003. Synleurin, a novel leucine-rich repeat protein that increases the intensity of pleiotropic cytokine responses. *Biochem. Biophys. Res. Commun.* 305: 981-988.
7. Schaefer, L. and Iozzo, R.V. 2008. Biological functions of the small leucine-rich proteoglycans: from genetics to signal transduction. *J. Biol. Chem.* 283: 21305-21309.

CHROMOSOMAL LOCATION

Genetic locus: CHADL (human) mapping to 22q13.2.

SOURCE

CHADL (N-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of CHADL of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86528 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CHADL (N-15) is recommended for detection of CHADL 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).

CHADL (N-15) is also recommended for detection of CHADL in additional species, including canine.

Suitable for use as control antibody for LOC150356 siRNA (h): sc-75443, LOC150356 shRNA Plasmid (h): sc-75443-SH and LOC150356 shRNA (h) Lentiviral Particles: sc-75443-V.

Molecular Weight of CHADL: 82 kDa.

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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.

PROTOCOLS

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