

COBLL1 (D-14): sc-132235

BACKGROUND

COBLL1 (Cordon-bleu protein-like 1), also known as COBLR1 or COBL-like 1, is a 1,204 amino acid protein expressed in liver, kidney, pancreas, spinal cord, brain, lung and ovary. The mouse and human COBLL1 proteins share 63% identity. COBLL1 is highly related to Cordon-bleu, a protein involved in midline development that is specifically expressed in the node and its derivatives, including a portion of the neural tube floor plate, the notochord and the dorsal foregut. Both Cordon-bleu and COBLL1 contain a conserved N-terminus with KRAP (lysine, arginine and proline-rich) repeats, a homologous C-terminus with at least one WH2 domain (one in COBLL1 and three in Cordon-bleu) and a divergent central region. Due to the high degree of similarity between COBLL1 and Cordon-bleu, it has been suggested that COBLL1 may functionally compensate for Cordon-bleu in its absence.

REFERENCES

1. Gasca, S., Hill, D.P., Klingensmith, J. and Rossant, J. 1995. Characterization of a gene trap insertion into a novel gene, Cordon-bleu, expressed in axial structures of the gastrulating mouse embryo. *Dev. Genet.* 17: 141-154.
2. Nagase, T., Ishikawa, K., Suyama, M., Kikuno, R., Hirokawa, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1999. Prediction of the coding sequences of unidentified human genes. XIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 6: 63-70.
3. Mori, Y., Yin, J., Rashid, A., Leggett, B.A., Young, J., Simms, L., Kuehl, P.M., Langenberg, P., Meltzer, S.J. and Stine, O.C. 2001. Instability typing: comprehensive identification of frameshift mutations caused by coding region microsatellite instability. *Cancer Res.* 61: 6046-6049.
4. Hitchins, M.P., Bentley, L., Monk, D., Beechey, C., Peters, J., Kelsey, G., Ishino, F., Preece, M.A., Stanier, P. and Moore, G.E. 2002. DDC and COBL, flanking the imprinted GRB10 gene on 7p12, are biallelically expressed. *Mamm. Genome* 13: 686-691.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610318: World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Carroll, E.A., Gerrelli, D., Gasca, S., Berg, E., Beier, D.R., Copp, A.J. and Klingensmith, J. 2003. Cordon-bleu is a conserved gene involved in neural tube formation. *Dev. Biol.* 262: 16-31.
7. Winckler, B. and Schafer, D.A. 2007. Cordon-bleu: a new taste in Actin nucleation. *Cell* 131: 236-238.
8. Ahuja, R., Pinyol, R., Reichenbach, N., Custer, L., Klingensmith, J., Kessels, M.M. and Qualmann, B. 2007. Cordon-bleu is an Actin nucleation factor and controls neuronal morphology. *Cell* 131: 337-350.

CHROMOSOMAL LOCATION

Genetic locus: COBLL1 (human) mapping to 2q24.3; Cobll1 (mouse) mapping to 2 C3.

RESEARCH USE

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

SOURCE

COBLL1 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of COBLL1 of mouse 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-132235 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COBLL1 (D-14) is recommended for detection of COBLL1 isoforms 1-4 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).

Suitable for use as control antibody for COBLL1 siRNA (h): sc-94776, COBLL1 siRNA (m): sc-142449, COBLL1 shRNA Plasmid (h): sc-94776-SH, COBLL1 shRNA Plasmid (m): sc-142449-SH, COBLL1 shRNA (h) Lentiviral Particles: sc-94776-V and COBLL1 shRNA (m) Lentiviral Particles: sc-142449-V.

Molecular Weight of COBLL1: 132 kDa.

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.