

Cordon-bleu (D-13): sc-138212

BACKGROUND

Cordon-bleu, also known as COBL, is a 1,261 amino acid protein that localizes to the node of the axial midline, a structure that organizes morphogenesis of the vertebrate embryo. Widely conserved and existing as five alternatively spliced isoforms, Cordon-bleu interacts with Vangl2 to mediate closure of the midbrain neural tube and is highly expressed in pancreas, ovary, brain, liver, lung and kidney. Cordon-bleu contains three WH2 domains and is encoded by a gene that maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance.

REFERENCES

1. Tsiouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Gasca, S., et al. 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.
3. Ishikawa, K., et al. 1998. Prediction of the coding sequences of unidentified human genes. X. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. *DNA Res.* 5: 169-176.
4. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. *Arch. Otolaryngol. Head Neck Surg.* 127: 705-708.
5. Carroll, E.A., et al. 2003. Cordon-bleu is a conserved gene involved in neural tube formation. *Dev. Biol.* 262: 16-31.
6. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-565.
7. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610317. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: COBL (human) mapping to 7p12.1; Cobl (mouse) mapping to 11 A1.

SOURCE

Cordon-bleu (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cordon-bleu of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 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-138212 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cordon-bleu (D-13) is recommended for detection of Cordon-bleu 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).

Cordon-bleu (D-13) is also recommended for detection of Cordon-bleu in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Cordon-bleu siRNA (h): sc-89500, Cordon-bleu siRNA (m): sc-142515, Cordon-bleu shRNA Plasmid (h): sc-89500-SH, Cordon-bleu shRNA Plasmid (m): sc-142515-SH, Cordon-bleu shRNA (h) Lentiviral Particles: sc-89500-V and Cordon-bleu shRNA (m) Lentiviral Particles: sc-142515-V.

Molecular Weight of Cordon-bleu: 136 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.