



# Cordon-bleu (E-14): sc-138213

## 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

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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.

## 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.

## SOURCE

Cordon-bleu (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Cordon-bleu 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-138213 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Cordon-bleu (E-14) 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 (E-14) is also recommended for detection of Cordon-bleu in additional species, including equine and canine.

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.

## RESEARCH USE

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