

# CIB2 (P-15): sc-104143

## BACKGROUND

CIB2 (calcium and integrin-binding family member 2) is a 187 amino acid protein encoded by the human gene CIB2. CIB2 is a ubiquitously expressed protein that contains three EF-hand domains. CIB2 is closely related to CIB1 (CIB1 has one less EF-hand domain), which is known to bind to Integrin  $\alpha$ IIb in platelets and is involved in signal transduction. CIB2 expression is significantly reduced in Laminin  $\alpha$ -2 chain deficient muscle, but is unaffected in the mouse model for Duchenne muscular dystrophy. This indicates that CIB2 is likely involved in the pathogenesis of MDC1A, a congenital muscular dystrophy caused by mutations in the gene encoding Laminin  $\alpha$ -2 chain. CIB2 also binds to Integrin  $\alpha$ 7 and calcium, indicating that CIB2 has various functions in signalling pathways.

## REFERENCES

1. Cachón-González, M.B., et al. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. *Proc. Natl. Acad. Sci. USA* 103: 10373-10378.
2. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. *Nature* 440: 671-675.
3. Diene, G., et al. 2007. The Prader-Willi syndrome. *Ann. Endocrinol.* 68: 129-137.
4. Lalande, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. *Cell. Mol. Life Sci.* 64: 947-960.
5. Maegawa, G.H., et al. 2007. Pyrimethamine as a potential pharmacological chaperone for late-onset forms of GM2 gangliosidosis. *J. Biol. Chem.* 282: 9150-9161.
6. Makoff, A.J. and Flomen, R.H. 2007. Detailed analysis of 15q11-q14 sequence corrects errors and gaps in the public access sequence to fully reveal large segmental duplications at breakpoints for Prader-Willi, Angelman, and inv dup(15) syndromes. *Genome Biol.* 8: R114.

## CHROMOSOMAL LOCATION

Genetic locus: CIB2 (human) mapping to 15q25.1; Cib2 (mouse) mapping to 9 A5.3.

## SOURCE

CIB2 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CIB2 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-104143 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

CIB2 (P-15) is recommended for detection of CIB2 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)], 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).

CIB2 (P-15) is also recommended for detection of CIB2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CIB2 siRNA (h): sc-89944, CIB2 siRNA (m): sc-105205, CIB2 shRNA Plasmid (h): sc-89944-SH, CIB2 shRNA Plasmid (m): sc-105205-SH, CIB2 shRNA (h) Lentiviral Particles: sc-89944-V and CIB2 shRNA (m) Lentiviral Particles: sc-105205-V.

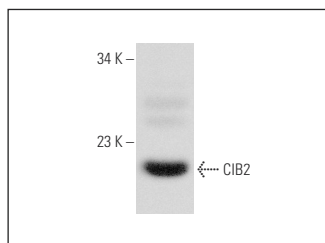
Molecular Weight of CIB2: 22 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or mouse eye extract: sc-364241.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



CIB2 (P-15): sc-104143. Western blot analysis of CIB2 expression in mouse eye tissue extract.

## RESEARCH USE

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

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Try **CIB2 (CIB2C12B11): sc-81068**, our highly recommended monoclonal alternative to CIB2 (P-15).