

CDO (M-144): sc-134837

BACKGROUND

Cell adhesion molecule-related/downregulated by oncogenes (CDO) and BOC (brother of CDO) are members of the immunoglobulin/Fibronectin type III repeat family and act as cell surface receptors. CDO is a component of a cell-surface receptor complex which also contains BOC, NEO1, CTNBN1 and cadherins and which acts as a mediator of cell-cell interactions between muscle cells. CDO and BOC are single pass membrane proteins that play a role in myogenic cell differentiation. Together, CDO and BOC participate in a positive feedback loop with MyoD, a myogenic transcription factor. The 1,242 amino acid rat CDO protein has a 24 residue signal sequence, five Ig V-like repeats, a 25 residue membrane-spanning region, three FNIII-like repeats and a cytoplasmic region of 256 amino acids containing a proline-rich stretch. The human protein contains 1,225 amino acid residues and shares significant homology with the domain structures of the rat protein.

REFERENCES

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3. Kang, J.S., Mulieri, P.J., Hu, Y., Taliana, L. and Krauss, R.S. 2002. BOC, an Ig superfamily member, associates with CDO to positively regulate myogenic differentiation. *EMBO J.* 21: 114-124.
4. Wegorzewska, M., Krauss, R.S. and Kang, J.S. 2003. Overexpression of the immunoglobulin superfamily members CDO and BOC enhances differentiation of the human rhabdomyosarcoma cell line RD. *Mol. Carcinog.* 37: 1-4.
5. Cole, F., Zhang, W., Geyra, A., Kang, J.S. and Krauss, R.S. 2004. Positive regulation of myogenic bHLH factors and skeletal muscle development by the cell surface receptor CDO. *Dev. Cell* 7: 843-854.
6. Zhang, W., Kang, J.S., Cole, F., Yi, M.J. and Krauss, R.S. 2006. CDO functions at multiple points in the Sonic hedgehog pathway and CDO-deficient mice accurately model human holoprosencephaly. *Dev. Cell* 10: 657-665.

CHROMOSOMAL LOCATION

Genetic locus: CDON (human) mapping to 11q24.2; Cdon (mouse) mapping to 9 A4.

SOURCE

CDO (M-144) is a rabbit polyclonal antibody raised against amino acids 31-174 mapping near the N-terminus of CDO 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.

RESEARCH USE

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

APPLICATIONS

CDO (M-144) is recommended for detection of CDO of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

CDO (M-144) is also recommended for detection of CDO in additional species, including equine and bovine.

Suitable for use as control antibody for CDO siRNA (h): sc-60345, CDO siRNA (m): sc-60346, CDO shRNA Plasmid (h): sc-60345-SH, CDO shRNA Plasmid (m): sc-60346-SH, CDO shRNA (h) Lentiviral Particles: sc-60345-V and CDO shRNA (m) Lentiviral Particles: sc-60346-V.

Molecular Weight of CDO: 160 kDa.

Positive Controls: C6 whole cell lysate: sc-364373.

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

PROTOCOLS

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