SANTA CRUZ BIOTECHNOLOGY, INC.

CDO (H-226): sc-134836

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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, CTNNB1 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, 5 Ig V-like repeats, a 25 residue membrane-spanning region, 3 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

1. Kang, J.S., Gao, M., Feinleib, J.L., Cotter, P.D., Guadagno, S.N. and Krauss, R.S. 1997. CDO: an oncogene-, serum- and anchorage-regulated member of the Ig/Fibronectin type III repeat family. J. Cell Biol. 138: 203-213.
2. Kang, J.S., Mulieri, P.J., Miller, C., Sassoon, D.A. and Krauss, R.S. 1998. CDO, a robo-related cell surface protein that mediates myogenic differentiation. J. Cell Biol. 143: 403-413.
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 (H-226) is a rabbit polyclonal antibody raised against amino acids 195-420 mapping within an internal region of CDO of human 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 (H-226) is recommended for detection of CDO of human and, to a lesser extent, mouse and rat 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).

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.

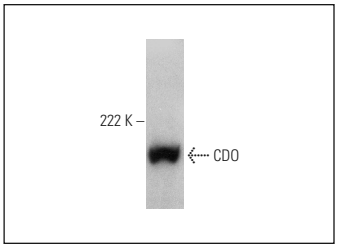
Molecular Weight of CDO: 160 kDa.

Positive Controls: human skeletal muscle extract: sc-363776.

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.

DATA



CDO (H-226): sc-134836. Western blot analysis of CDO expression in human skeletal muscle tissue extract.

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.