

Ect2 (H-300): sc-25637

BACKGROUND

Numerous cellular functions such as proliferation, differentiation, apoptosis, vesicular trafficking, nuclear transport and cytoskeletal organization are controlled by GTPases. It has become increasingly clear that GTPases act in cascades in which their activities are linked by GTPase-activating proteins (GAPs) and guanine nucleotide exchange factors (GEFs). In a search for new epithelial cell-specific oncogenes using a highly efficient cDNA expression cloning system, the *ost* oncogene was isolated from rat osteosarcoma cells. The *Ost* proto-oncogene protein contains DH and PH domains and catalyzes guanine nucleotide exchange on RhoA and Cdc42 and interacts specifically with the GTP-bound form of Rac1. A similar protein, Ect2, specifically interacts with Rho and Rac proteins *in vitro*. Ect2 shares sequence homology with the 255 amino acid central core of the breakpoint cluster gene, *bcr*, as well as with yeast CDC24 and the Dbl oncogene, all of which have been shown to modulate the function of small Rho-like GTP binding proteins. The Ect2 contains both PH and DH domains.

CHROMOSOMAL LOCATION

Genetic locus: ECT2 (human) mapping to 3q26.31; Ect2 (mouse) mapping to 3 A3.

SOURCE

Ect2 (H-300) is a rabbit polyclonal antibody raised against amino acids 584-883 of Ect2 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.

STORAGE

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

APPLICATIONS

Ect2 (H-300) is recommended for detection of Ect2 of mouse, rat and 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).

Ect2 (H-300) is also recommended for detection of Ect2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Ect2 siRNA (h): sc-35259, Ect2 siRNA (m): sc-35260, Ect2 shRNA Plasmid (h): sc-35259-SH, Ect2 shRNA Plasmid (m): sc-35260-SH, Ect2 shRNA (h) Lentiviral Particles: sc-35259-V and Ect2 shRNA (m) Lentiviral Particles: sc-35260-V.

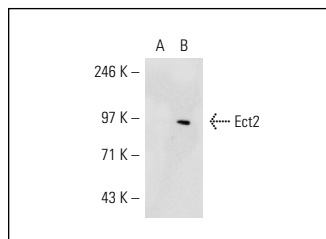
Molecular Weight of Ect2: 100 kDa.

Positive Controls: Ect2 (h): 293 Lysate: sc-110479, Ect2 (m3): 293T Lysate: sc-119914 or HeLa whole cell lysate: sc-2200.

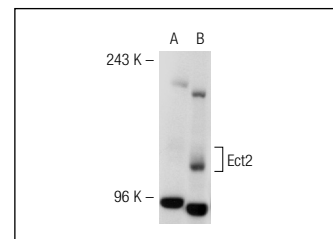
RECOMMENDED SECONDARY REAGENTS

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



Ect2 (H-300): sc-25637. Western blot analysis of Ect2 expression in non-transfected: sc-110760 (A) and human Ect2 transfected: sc-110479 (B) 293 whole cell lysates.



Ect2 (H-300): sc-25637. Western blot analysis of Ect2 expression in non-transfected: sc-117752 (A), mouse Ect2 transfected: sc-119914 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Dadke, D., et al. 2006. Deregulation of HEF1 impairs M-phase progression by disrupting the RhoA activation cycle. *Mol. Biol. Cell* 17: 1204-1217.
2. Hirooka, S., et al. 2011. Localization of the invadopodia-related proteins actinin-1 and cortactin to matrix-contact-side cytoplasm of cancer cells in surgically resected lung adenocarcinomas. *Pathobiology* 78: 10-23.

RESEARCH USE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Ect2 (G-4): sc-514750** or **Ect2 (E-1): sc-514769**, our highly recommended monoclonal alternatives to Ect2 (H-300).