

Anti-Phospho-ECT2 T790 Antibody

Catalog Number: P01862

About ECT2

This antibody is suitable for Cancer, Immunology and Nuclear Signaling research. ECT2, also known as epithelial cell transforming sequence 2 oncogene, was originally isolated as a transforming gene from epithelial cells. ECT2 catalyzes guanine nucleotide exchange on the small GTPases, RhoA, Rac1, and Cdc42. ECT2 may be phosphorylated during G₂ and M phases, and phosphorylation may be required for its exchange activity. Unlike other known guanine nucleotide exchange factors for Rho GTPases, ECT2 exhibits nuclear localization in interphase, spreads throughout the cytoplasm in prometaphase, and is condensed in the midbody during cytokinesis. Expression of dominant-negative ECT2 or microinjection of affinity-purified anti-ECT2 antibody into interphase cells strongly inhibits cytokinesis. These results suggest that ECT2 is an important link between the cell cycle machinery and Rho signaling pathways involved in the regulation of cell division. Phosphorylation at T790 or S375 significantly affects the catalytic activity of ECT2.

Overview

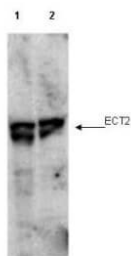
Product Name	Anti-Phospho-ECT2 T790 Antibody
Reactive Species	Human
Description	Boster Bio Anti-Phospho-ECT2 T790 Antibody (Catalog # P01862). Tested in ELISA, WB applications. This antibody reacts with Human.
Application	ELISA, IP, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	Q9H8V3

Technical Details

Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region of human ECT2 protein.
Predicted Reactive Species	Canine, Chicken, Chimpanzee, Zebrafish
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG

Form	Liquid (sterile filtered)
Concentration	1.0 mg/mL by UV absorbance at 280 nm
Purification	<p>This affinity-purified antibody is directed against the phosphorylated form of human ECT2 protein at the pT790 residue. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide. Reactivity occurs against human ECT2 protein at the pT790 residue. By ELISA the antibody is specific for the phosphorylated form of the protein. Reactivity with non-phosphorylated human ECT2 is minimal by ELISA, but western blot shows specific staining of interphase cell lysates, which are predicted to contain non-phosphorylated ECT2. Additional experiments are underway to clarify antibody specificity. A BLAST analysis was used to suggest cross-reactivity with ECT2 protein from human, mouse, rat, zebrafish, chimpanzee, chicken, and dog based on 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.</p>
Suggested Dilutions	<p>ELISA: 1:10,000 - 1:40,000 IP: User optimized WB: 1:1,000 - 1:4,000</p> <p>This affinity-purified antibody has been tested for use in ELISA, western blot and immunoprecipitation. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 101 kDa in size by western blotting in the appropriate cell lysate or extract. Less than 2% reactivity is observed against the non-phosphorylated form of the immunizing peptide. This antibody is believed to be phospho specific for ECT2 phosphorylated at the pT790 residue. Experiments to generate more conclusive evidence are currently under preparation.</p>

Anti-Phospho-ECT2 T790 Antibody (P01862) Images



Western blot using Boster's affinity purified anti-ECT2 pT790 antibody shows detection of endogenous phosphorylated ECT2 (arrowhead) present in cell lysates from interphase (lane 1) and mitotic (lane 2) HeLa cells. Despite specific staining of interphase cells, this reagent is believed to be phospho specific based on ELISA results using both phosphorylated and non-phosphorylated immunizing peptide. After SDS-PAGE and transfer, the membrane was probed with the primary antibody diluted to 1:1,000. Personal Communication, Toru Miki, CCR-NCI, Bethesda, MD.

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