

Datasheet for 600-401-935**ECT2 phospho T790 Antibody****Overview**

Description:	Anti-ECT2 pT790 (RABBIT) Antibody - 600-401-935
Item No.:	600-401-935
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and 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 G ₂ 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.
Synonyms:	rabbit anti-ECT2 pT790 Antibody, ECT 2 antibody, ECT-2 protein antibody, Epithelial cell transforming sequence 2 antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ECT2
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Reactivity:	Human
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic phospho-peptide corresponding to an internal region of human ECT2 protein.
Purity/Specificity:	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.
Relevant Links:	• UniProtKB - Q9H8V3 • NCBI - 21735572 • GenelD - 1894

Application Details

Tested Applications:	ELISA, WB
Application Note:	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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:40,000
IP:	User Optimized
WB:	1:1,000 - 1:4,000

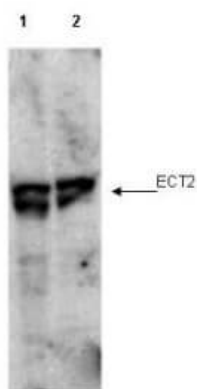
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	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:	Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western blot using Rockland'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.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.