Datasheet for 600-401-889

Cbl-c Antibody

Overview

Description:	Anti-cbl-c (RABBIT) Antibody - 600-401-889
Item No.:	600-401-889
Size:	100 µg
Applications:	ELISA, IHC, IP, 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. Cbl-c is also known as signal transduction protein CBL-C, SH3-binding protein CBL-C, CBL-3, and RING finger protein 57. Cbl proteins are a family of ubiquitin protein ligases (E3s) that negatively regulate signaling by targeting activated tyrosine kinases for degradation. Cbl-c (a.k.a. Cbl-3) is the most recently cloned member of the Cbl proteins and is expressed only in epithelial cells (the other Cbl proteins are ubiquitously expressed). Cbl-c, like the other mammalian Cbl proteins, can ubiquitinate the activated EGFR and target it for degradation. Cbl-c knock out mice show no obvious phenotype. Thus, the physiological role of Cbl-c is not known.
Synonyms:	rabbit anti-Cbl-c Antibody, E3 ubiquitin-protein ligase CBL-C, RING finger protein 57, RING-type E3 ubiquitin transferase CBL-C, SH3-binding protein CBL-3, SH3-binding protein CBL-C, Signal transduction protein CBL-C, CBLC, CBL3, RNF57
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CBLC
Reactivity:	Human

Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity-purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the C-Terminal portion of Human Cbl-c.
Purity/Specificity:	This affinity purified antibody is directed against human Cbl-c protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest that this antibody would react with Cbl-c from human and chimpanzee sources. Expect partial reactivity against mouse and rat sources of Cbl-c as ~83% sequence homology is on record for the immunogen sequence. Reactivity with Cbl-c from other sources has not been determined. No reactivity is expected with Cbl-a or Cbl-b.
Relevant Links:	• NCBI - 125987803 • UniProtKB - Q9ULV8 • GeneID - 23624

Application Details

Tested Applications:	ELISA, IHC, IP, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA, immunohistochemistry, immunoprecipitation and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~52 kDa in size corresponding to Cbl-c by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IHC:	1:500 - 1:3,000
IP:	User Optimized
WB:	1:500 - 1:3,000

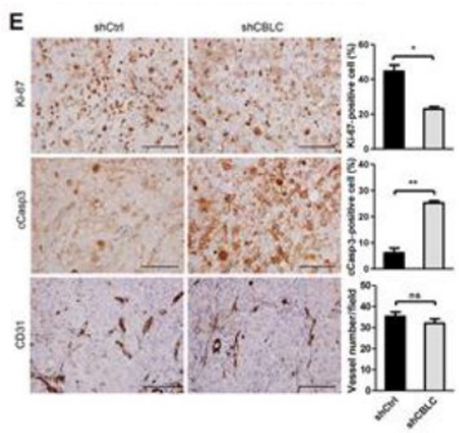
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.2 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

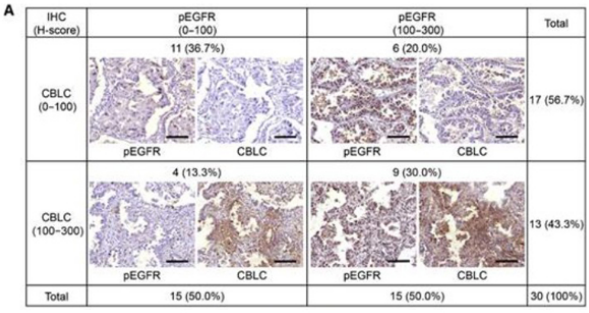
Shipping & Handling

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.

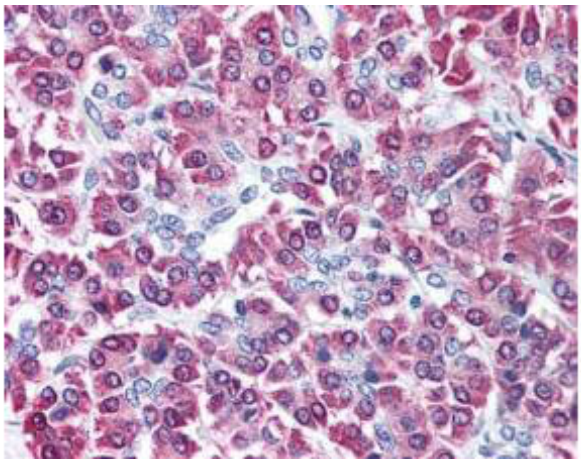
Images



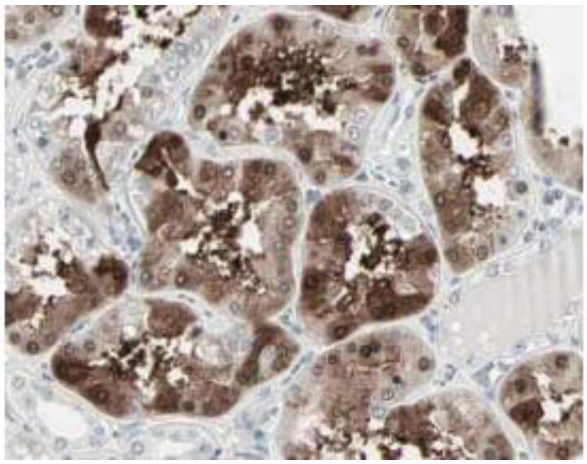
Immunohistochemistry
Tumor growth of HCC827 cells expressing control and shRNAs in xenograft models. The harvested tumors were subjected to IHC staining (E).Representative (left) and quantitative (right) graphs of Ki67, cleaved caspase-3 (cCasp3), and CD31-stained tumor section. Scale bar, 100 µm. Ki-67 and cleaved caspase-3 are expressed as percentage of positive cells per field and CD31 is expressed as positive vessels per field (×400) from eight fields derived from four sections per group (*, P < 0.05; **, P < 0.01; ***, P < 0.001). ns, nonsignificant. Fig 2. PMID: 29945960



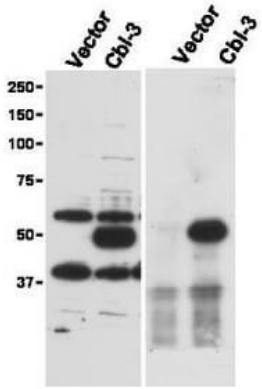
Immunohistochemistry
The correlation of upregulated CBLC and pEGFR in LUAD. A, The representative IHC staining images and the correlation of CBLC and pEGFR in LUAD. The correlation between CBLC and pEGFR expression in 30 cases of LUAD was evaluated through Fisher exact test (P = 0.0656). Scale bars, 100 µm. Fig 7. PMID: 29945960



Immunohistochemistry
Rockland's affinity purified anti-Cbl-c antibody was used at 5 µg/ml to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows moderate intracellular positive staining of human pancreatic acinar epithelium at 40X. Tissue was formalin-fixed and paraffin embedded. The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain. Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.



Immunohistochemistry
Rockland's Affinity Purified anti-Cbl-c antibody shows strong nuclear and cytoplasmic staining of cells in tubuli in human kidney tissue. Tissue was formalin-fixed and paraffin embedded. Brown color indicates presence of protein, blue color shows cell nuclei. Personal Communication, Kenneth Wester, www.proteinatlas.org, Uppsala, Sweden.



Western Blot
Immunoprecipitation (right) and western blot (left) using Rockland's Affinity Purified anti-Cbl-c antibody shows detection of a predominant band at ~52 kDa corresponding to Cbl-c. Lysates used are from HEK293T cells transfected with empty vector or with Cbl-c and western blotting (left panel). The predicted size of Cbl-c is 52 kDa. Size markers in kDa are shown to the left of the panel. The (right panel) shows immunoprecipitation with Rabbit anti-Cbl-c followed by western blotting using a Goat anti-Cbl-c antibody. Personal Communication. Stan Lipkowitz, NCI, NIH, Bethesda, MD.

References

- Hong SY et al. Stabilization of AURKA by the E3 ubiquitin ligase CBLC in lung adenocarcinoma. *Oncogene.* (2022)
- Hong SY et al. Upregulation of E3 Ubiquitin Ligase CBLC Enhances EGFR Dysregulation and Signaling in Lung Adenocarcinoma. *Cancer Res.* (2018)

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