

CC10 (E-11): sc-365992



The Power to Question

BACKGROUND

Clara cell 10 (CC10) protein, a homologue of rabbit uteroglobin, is a phospholipase A₂ inhibitor. CC10 is regulated by AP-1, octamer, and hepatocyte nuclear factor-3 (HNF-3) family transcription factors. CC10 expression changes in relation to the ovarian menstrual cycle, and expression in human endometrium may be stimulated by progesterone, suggesting that CC10 may regulate eicosanoid levels in the human uterus. CC10 is expressed in nonciliated airway epithelial cells in the lung and in urogenital secretions. CC10 is involved in modulating inflammation in airway passages and may play a role in asthma. Overexpression of CC10 in the non-small cell lung cancer cell line A549 was shown to result in the near absence of MMP-2 and MMP-9 matrix metalloproteinases and a reduction in invasiveness, indicating that loss of CC10 may contribute to carcinogenesis.

CHROMOSOMAL LOCATION

Genetic locus: SCGB1A1 (human) mapping to 11q12.3; Scgb1a1 (mouse) mapping to 19 A.

SOURCE

CC10 (E-11) is a mouse monoclonal antibody raised against amino acids 17-91 of CC10 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CC10 (E-11) is available conjugated to agarose (sc-365992 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365992 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365992 PE), fluorescein (sc-365992 FITC), Alexa Fluor® 488 (sc-365992 AF488), Alexa Fluor® 546 (sc-365992 AF546), Alexa Fluor® 594 (sc-365992 AF594) or Alexa Fluor® 647 (sc-365992 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365992 AF680) or Alexa Fluor® 790 (sc-365992 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CC10 (E-11) is recommended for detection of CC10 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 CC10 siRNA (h): sc-29954, CC10 siRNA (m): sc-29955, CC10 shRNA Plasmid (h): sc-29954-SH, CC10 shRNA Plasmid (m): sc-29955-SH, CC10 shRNA (h) Lentiviral Particles: sc-29954-V and CC10 shRNA (m) Lentiviral Particles: sc-29955-V.

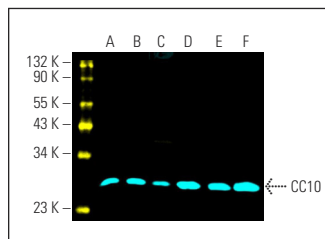
Molecular Weight of CC10: 10 kDa.

Positive Controls: A549 cell lysate: sc-2413, NCI-H292 whole cell lysate: sc-364179 or WI-38 whole cell lysate: sc-364260.

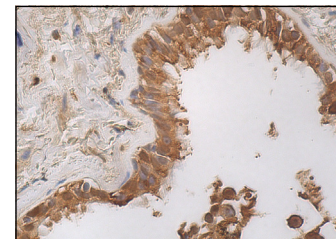
STORAGE

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

DATA



CC10 (E-11) Alexa Fluor® 647: sc-365992 AF647. Direct fluorescent western blot analysis of CC10 expression in A549 (A), NCI-H292 (B), WI-38 (C), AMJ2-C8 (D), SHP-77 (E) and H69AR (F) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 488: sc-516790.



CC10 (E-11): sc-365992. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic and nuclear staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

- Ruiz, E.J., et al. 2014. A paracrine network regulates the cross-talk between human lung stem cells and the stroma. *Nat. Commun.* 5: 3175.
- Smirnova, N.F., et al. 2016. Detection and quantification of epithelial progenitor cell populations in human healthy and IPF lungs. *Respir. Res.* 17: 83.
- Liu, C., et al. 2018. ITGB4 is essential for containing HDM-induced airway inflammation and airway hyperresponsiveness. *J. Leukoc. Biol.* 103: 897-908.
- Bustamante-Marin, X.M., et al. 2019. Lack of GAS2L2 causes PCD by impairing cilia orientation and mucociliary clearance. *Am. J. Hum. Genet.* 104: 229-245.
- Wang, X., et al. 2020. IL-4/IL-13 upregulates Sonic hedgehog expression to induce allergic airway epithelial remodeling. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 318: L888-L899.
- Tong, X., et al. 2021. Nanog maintains stemness of Lkb1-deficient lung adenocarcinoma and prevents gastric differentiation. *EMBO Mol. Med.* 13: e12627.
- Ma, B., et al. 2022. CHI3L1 enhances melanoma lung metastasis via regulation of T cell co-stimulators and CTLA-4/B7 axis. *Front. Immunol.* 13: 1056397.
- Lee, M.C., et al. 2023. A multiplexed *in vivo* approach to identify driver genes in small cell lung cancer. *Cell Rep.* 42: 111990.
- Wu, K., et al. 2023. Lung remodeling regions in long-term Covid-19 feature basal epithelial cell reprogramming. *Am. J. Pathol.* 193: 680-689.

RESEARCH USE

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