

# CC10 (B-6): sc-390313



The Power to Question

## BACKGROUND

Clara cell 10 (CC10) protein, a homologue of rabbit uteroglobin, is a phospholipase A<sub>2</sub> 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 (mouse) mapping to 19 A.

## SOURCE

CC10 (B-6) is a mouse monoclonal antibody raised against amino acids 1-96 representing full length CC10 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CC10 (B-6) is available conjugated to agarose (sc-390313 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390313 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390313 PE), fluorescein (sc-390313 FITC), Alexa Fluor® 488 (sc-390313 AF488), Alexa Fluor® 546 (sc-390313 AF546), Alexa Fluor® 594 (sc-390313 AF594) or Alexa Fluor® 647 (sc-390313 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390313 AF680) or Alexa Fluor® 790 (sc-390313 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

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

## APPLICATIONS

CC10 (B-6) is recommended for detection of CC10 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CC10 siRNA (m): sc-29955, CC10 shRNA Plasmid (m): sc-29955-SH and CC10 shRNA (m) Lentiviral Particles: sc-29955-V.

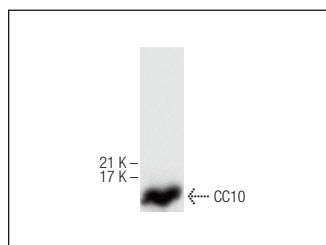
Molecular Weight of CC10: 10 kDa.

Positive Controls: mouse lung extract: sc-2390.

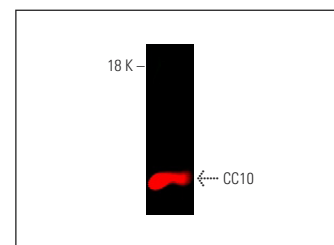
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



CC10 (B-6): sc-390313. Western blot analysis of CC10 expression in mouse lung tissue extract.



CC10 (B-6): sc-390313. Near-infrared western blot analysis of CC10 expression in mouse lung tissue extract. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.

## SELECT PRODUCT CITATIONS

- Leeman, K.T., et al. 2019. Mesenchymal stem cells increase alveolar differentiation in lung progenitor organoid cultures. *Sci. Rep.* 9: 6479.
- He, M., et al. 2020. Chloride channels regulate differentiation and barrier functions of the mammalian airway. *Elife* 9: e53085.
- Cassandras, M., et al. 2020. Gli1+ mesenchymal stromal cells form a pathological niche to promote airway progenitor metaplasia in the fibrotic lung. *Nat. Cell Biol.* 22: 1295-1306.
- Moiseenko, A., et al. 2020. Identification of a repair-supportive mesenchymal cell population during airway epithelial regeneration. *Cell Rep.* 33: 108549.
- Bruno, S.R., et al. 2021. DRP1-mediated mitochondrial fission regulates lung epithelial response to allergen. *Int. J. Mol. Sci.* 22: 11125.
- Ogata, K., et al. 2021. Club cells are the primary target for permethrin-induced mouse lung tumor formation. *Toxicol. Sci.* 184: 15-32.
- Bruno, S., et al. 2023. Deletion of Miro1 in airway club cells potentiates allergic asthma phenotypes. *Front. Allergy* 4: 1187945.

## STORAGE

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