SANTA CRUZ BIOTECHNOLOGY, INC.

CC10 (FL-96): sc-25555

SANTA CRUZ BIOTECHNOLOGY

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 the lung in nonciliated airway epithelial cells 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.

REFERENCES

1. Hagen, G., et al. 1990. Tissue-specific expression, hormonal regulation and 5'-flanking gene region of the rat Clara cell 10 kDa protein: comparison to rabbit uteroglobin. Nucleic Acids Res. 18: 2939-2946.
2. Singh, G., et al. 1990. Clara cell 10 kDa protein (CC10): comparison of structure and function to uteroglobin. Biochim. Biophys. Acta 1039: 348-355.
3. Bernard, A., et al. 1992. Human urinary protein 1: evidence for identity with the Clara cell protein and occurrence in respiratory tract and urogenital secretions. Clin. Chim. Acta 207: 239-249.

CHROMOSOMAL LOCATION

Genetic locus: Scgb1a1 (mouse) mapping to 19 A.

SOURCE

CC10 (FL-96) is a rabbit polyclonal antibody raised against amino acids 1-96 representing full length CC10 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CC10 (FL-96) is recommended for detection of CC10 of mouse and rat origin by Western Blotting (starting dilution 1:200, 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.

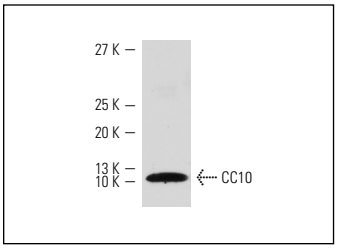
Molecular Weight of CC10: 10 kDa.

Positive Controls: rat lung extract: sc-2396.

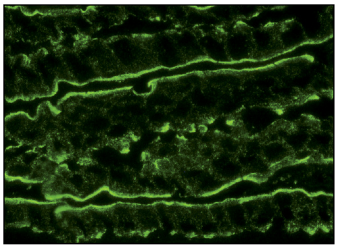
STORAGE

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

DATA



CC10 (FL-96): sc-25555. Western blot analysis of CC10 expression in rat lung tissue extract.



CC10 (FL-96): sc-25555. Immunofluorescence staining of normal mouse intestine frozen section showing extracellular staining.

SELECT PRODUCT CITATIONS

1. Li, Y., et al. 2007. Lysosomal acid lipase over-expression disrupts lamellar body genesis and alveolar structure in the lung. Int. J. Exp. Pathol. 88: 427-436.
2. Jay, P.Y., et al. 2007. Impaired mesenchymal cell function in Gata4 mutant mice leads to diaphragmatic hernias and primary lung defects. Dev Biol. 301: 602-614.
3. Harvilchuck, J.A., et al. 2008. CC10 mRNA and protein expression in Clara cells of CD-1 mice following exposure to styrene or its metabolites styrene oxide or 4-vinylphenol. Toxicol. Lett. 183: 28-35.
4. Merigo, F., et al. 2009. Amylase expression in taste receptor cells of rat circumvallate papillae. Cell Tissue Res. 336: 411-421.
5. Flozak, A.S., et al. 2010. β-catenin/T-cell factor signaling is activated during lung injury and promotes the survival and migration of alveolar epithelial cells. J. Biol. Chem. 285: 3157-3167.
6. Foronjy, R., et al. 2010. The divergent roles of secreted frizzled related protein-1 (SFRP1) in lung morphogenesis and emphysema. Am. J. Pathol. 177: 598-607.
7. Zacharek, S.J., et al. 2011. Lung stem cell self-renewal relies on BMI1-dependent control of expression at imprinted loci. Cell Stem Cell 9: 272-281.

RESEARCH USE

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