SANTA CRUZ BIOTECHNOLOGY, INC.

Mucin 15 (K-17): sc-46409

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The mucins are a family of highly glycosylated, secreted proteins with a basic structure consisting of a variable number of tandem repeats (VNTRs). Membrane-associated and secretory mucins are high molecular weight glycoproteins of the glycocalyx (polysaccharide biofilm) that protects mucosal epithelium from particulate matter and microorganisms. Epithelial mucins are large, secreted and cell surface glycoproteins crucial for adhesion modulation, signaling and epithelial cell protection. The number of repeats is highly polymorphic and varies among different alleles. The mucin family consists of Mucins 1-4, Mucin-5 (AC and B), Mucins 6-8, -11, -12, -13, -15, -16 and 17. Mucin-15 is involved in cell adhesion to the extracellular matrix. It is primarily expressed in prostate, testis, lung, spleen, thymus, ovary, small intestine, colon, bone marrow, lymph node, lung and peripheral blood leukocytes. Mucin-15 is a highly glycosylated protein.

REFERENCES

1. Lan, M.S., et al. 1990. Cloning and sequencing of a human pancreatic tumor mucin cDNA. J. Biol. Chem. 265: 15294-15299.
2. Moniaux, N., et al. 2001. Structural organization and classification of the human mucin genes. Front. Biosci. 6: D1192-D1206.
3. Leikauf, G.D., et al. 2002. Mucin apoprotein expression in COPD. Chest. 121: 166S-182S.
4. Pallesen, L.T., et al. 2002. Isolation and characterization of MUC15, a novel cell membrane-associated mucin. Eur. J. Biochem. 269: 2755-2763.
5. Byrd, J.C., et al. 2004. Mucins and mucin binding proteins in colorectal cancer. Cancer Metastasis Rev. 23: 77-99.

CHROMOSOMAL LOCATION

Genetic locus: MUC15 (human) mapping to 11p14.2; Muc15 (mouse) mapping to 2 E3.

SOURCE

Mucin 15 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Mucin 15 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-46409 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Mucin 15 (K-17) is recommended for detection of Mucin 15 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Mucin 15 (K-17) is also recommended for detection of Mucin 15 in additional species, including bovine.

Suitable for use as control antibody for Mucin 15 siRNA (h): sc-45694, Mucin 15 siRNA (m): sc-45695, Mucin 15 shRNA Plasmid (h): sc-45694-SH, Mucin 15 shRNA Plasmid (m): sc-45695-SH, Mucin 15 shRNA (h) Lentiviral Particles: sc-45694-V and Mucin 15 shRNA (m) Lentiviral Particles: sc-45695-V.

Molecular Weight of Mucin 15: 36 kDa.

Positive Controls: JAR cell lysate: sc-2276.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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