

# Mucin 12 (P-18): sc-46398

## 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, Mucins 11-13 and Mucins 15-17. Mucin 11 and 12 are downregulated in colorectal cancers. MUC11, the gene encoding for Mucin 11, encodes 35 serine/threonine-rich, Mucin-like degenerate 28 amino acid tandem repeats.

## 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. Williams, S.J., et al. 1999. Two novel Mucin genes downregulated in colorectal cancer identified by differential display. *Cancer Res.* 59: 4083-4089.
3. Moniaux, N., et al. 2001. Structural organization and classification of the human Mucin genes. *Front. Biosci.* 6: D1192-D1206.
4. Leikauf, G.D., et al. 2002. Mucin apoprotein expression in COPD. *Chest* 121: 166S-182S.
5. Takeuchi, K., et al. 2003. Mucin gene expression in the effusions of otitis media with effusion. *Int. J. Pediatr. Otorhinolaryngol.* 67: 53-58.
6. Packer, L.M., et al. 2004. Expression of the cell surface Mucin gene family in adenocarcinomas. *Int. J. Oncol.* 25: 1119-1126.

## CHROMOSOMAL LOCATION

Genetic locus: MUC12 (human) mapping to 7q22.1.

## SOURCE

Mucin 12 (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Mucin 12 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-46398 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## RESEARCH USE

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

## APPLICATIONS

Mucin 12 (P-18) is recommended for detection of Mucin 12 of 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).

Suitable for use as control antibody for Mucin 12 siRNA (h): sc-45683, Mucin 12 shRNA Plasmid (h): sc-45683-SH and Mucin 12 shRNA (h) Lentiviral Particles: sc-45683-V.

Molecular Weight of Mucin 12: 64 kDa.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Mucin 12 (B-9): sc-377269** or **Mucin 12 (G-1): sc-377268**, our highly recommended monoclonal alternatives to Mucin 12 (P-18).