

Mucin 5B (H-300): sc-20119

BACKGROUND

Mucins are a group of high molecular weight glycoproteins consisting of a Mucin core protein and O-linked carbohydrates. The Mucin 5B gene, which contains a 3' *cis*-element, is one of the four mucin genes mapped to human chromosome 11p15.5. Although Mucin 5B is the prominent human gallbladder mucin, it is also expressed and secreted in the colon. In addition, Mucin 5B is expressed in non-inflamed middle ears and normal esophagus, and is upregulated by chronic inflammation and highly secreted in the diseased middle ear. Mucin 5B is abnormally expressed in gastric carcinomatous tissues. Its expression in gastric cancer cells is controlled by a highly active distal promoter, which is upregulated by protein kinase C and repressed under the influence of methylation. Mucosa differentiation and expression of Mucin 5B is retinoic acid- (RA) or retinol-dependent. RA control of mucin gene is mediated by the retinoic acid receptor RAR α and, to a lesser extent, by RAR γ . The correlation of mucin protein levels in human cervical mucous with the peak at midcycle suggests that mucin may be important in sperm transit to the uterus.

CHROMOSOMAL LOCATION

Genetic locus: MUC5B (human) mapping to 11p15.5.

SOURCE

Mucin 5B (H-300) is a rabbit polyclonal antibody raised against amino acids 1201-1500 mapping within an internal region of Mucin 5B of human origin.

PRODUCT

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

APPLICATIONS

Mucin 5B (H-300) is recommended for detection of Mucin 5B of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Mucin 5B siRNA (h): sc-106263, Mucin 5B shRNA Plasmid (h): sc-106263-SH and Mucin 5B shRNA (h) Lentiviral Particles: sc-106263-V.

Molecular Weight of Mucin 5B: 600 kDa.

STORAGE

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

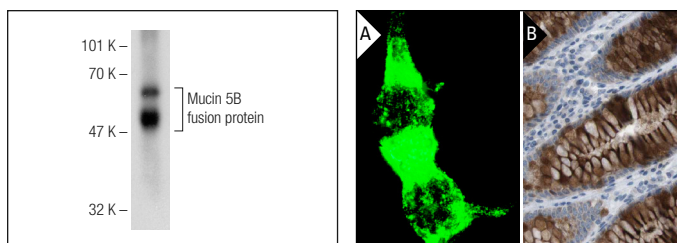
PROTOCOLS

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

RESEARCH USE

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

DATA



Mucin 5B (H-300): sc-20119. Western blot analysis of human recombinant Mucin 5B fusion protein.

Mucin 5B (H-300): sc-20119. Immunofluorescence staining of methanol-fixed MCF7 cells showing cytoplasmic and cell surface localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

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- Jonkam, C., et al. 2010. Muscarinic receptor antagonist therapy improves acute pulmonary dysfunction after smoke inhalation injury in sheep. *Crit. Care Med.* 38: 2339-2344.
- Wu, X., et al. 2011. Histologic characteristics and mucin immunohistochemistry of cystic fibrosis sinus mucosa. *Arch. Otolaryngol. Head Neck Surg.* 137: 383-389.
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- Hao, Y., et al. 2012. *Pseudomonas aeruginosa* pyocyanin causes airway goblet cell hyperplasia and metaplasia and mucus hypersecretion by inactivating the transcriptional factor FoxA2. *Cell. Microbiol.* 14: 401-415.
- Hao, Y., et al. 2013. Pyocyanin-induced mucin production is associated with redox modification of FOXA2. *Respir. Res.* 14: 82.



Try **Mucin 5B (5B#19-2E): sc-21768** or **Mucin 5B (A-3): sc-393952**, our highly recommended monoclonal alternatives to Mucin 5B (H-300).