



Mucin 8 (G-20): sc-16922

BACKGROUND

Mucin glycoproteins (Mucins) are major constituents of the glycocalyx that covers mucosal epithelium. There are two broad classes of mucins: membrane-associated and secretory mucins. The gene expression of mucins (Mucin 1-Mucin 8) changes characteristically during malignant transformation of epithelial tissues. The Mucin 8 gene is localized to human chromosome 12q24.3. Mucin 8, a 313 amino acid protein, is not expressed in human fetal tissues, but has a high expression level in human testis, placenta, endometrium and cervix, and weak or undetectable levels in the human epididymis, seminal vesicle, ovary, fallopian tube and uterus. Both male and female reproductive tract tissues synthesize tracheal Mucin 8. Mucin 8 is one of the major mucins in the ethmoid mucosa and is upregulated by chronic inflammation. TNF α , IL-1 β and a combination of both can significantly increase Mucin 8 mRNA levels, suggesting that a mixture of inflammatory mediators can synergistically increase secretion of mucin in human nasal epithelium.

REFERENCES

1. D'Curz, O.J., Dunn, T.S., Pichan, P., Hass, G.G. Jr., and Sachdev, G.P. 1996. Antigenic cross-reactivity of human tracheal mucin with human sperm and trophoblasts correlates with the expression of Mucin 8 gene messenger ribonucleic acid in reproductive tract tissues. *Fertil. Steril.* 66: 316-326.
2. Shankar, V., Pichan, P., Eddy, R.L. Jr., Tonk, V., Nowak, N., Sait, S.N., Shows, T.B., Schultz, R.E., Gotway, G., Elkins, R.C., Gilmore, M.S., and Sachdev, G.P. 1997. Chromosomal localization of a human mucin gene (Mucin 8) and cloning of the cDNA corresponding to the carboxy terminus. *Am. J. Respir. Cell Mol. Biol.* 16: 232-241.
3. Retz, M., Lehmann, J., Roder, C., Plotz, B., Harder, J., Eggers, J., Pauluschke, J., Kalthoff, H., and Stockle, M. 1998. Differential Mucin 7 gene expression in invasive bladder carcinoma in contrast to uniform Mucin 1 and Mucin 2 gene expression in both normal urothelium and bladder carcinoma. *Cancer Res.* 58: 5662-5666.
4. Lagow, E., DeSouza, M.M., and Carson, D.D. 1999. Mammalian reproductive tract mucins. *Hum. Reprod. Update* 5: 280-292.
5. Yoon, J.H., Kim, K.S., Kim, H.U., Linton, J.A., and Lee, J.G. 1999. Effects of TNF α and IL-1 β on mucin, lysozyme, IL-6 and IL-8 in passage-2 normal human nasal epithelial cells. *Acta Otolaryngol.* 119: 905-910.
6. Jung, H.H., Lee, J.H., Kim, Y.T., Lee, S.D., and Park, J.H. 2000. Expression of mucin genes in chronic ethoiditis. *Am. J. Rhinol.* 14: 163-170.

SOURCE

Mucin 8 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Mucin 8 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.

Blocking peptide available for competition studies, sc-16922 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Mucin 8 (G-20) is recommended for detection of Mucin 8 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).

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.

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.

PROTOCOLS

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