

Mucin 13 (R-245): sc-66973

BACKGROUND

Mucins are epithelial glycoproteins with a high content of clustered oligosaccharides that are O-glycoside-linked to tandem repeat peptides rich in threonine, serine and proline. Mucin 13 (MUC13), also designated downregulated in colon cancer 1 (DRCC1), is an epithelial and hemopoietic type I membrane protein that undergoes secretion and influences gastrointestinal mucosa levels. It is most abundant in epithelial tissues of the gastrointestinal and respiratory tracts, such as large intestine and trachea, followed by kidney, small intestine, appendix and stomach. Mucin 13 is a good differentiation marker for gastrointestinal mucosa and may also indicate certain gastric tumors. It localizes to the apical membrane of both columnar and goblet cells in the gastrointestinal tract, and within goblet cell thecae. Mucin 13 is a cleaved protein and the β subunit, containing the cytoplasmic tail, can homodimerize.

REFERENCES

- Williams, S.J., et al. 2001. MUC13, a novel human cell surface mucin expressed by epithelial and hemopoietic cells. *J. Biol. Chem.* 276: 18327-18336.
- Corrales, R.M., et al. 2003. Normal human conjunctival epithelium expresses MUC13, MUC15, MUC16 and MUC17 mucin genes. *Arch. Soc. Esp. Ophthalmol.* 78: 375-381.
- Carraway, K.L., et al. 2003. Cell signaling through membrane mucins. *Bioessays* 25: 66-71.
- Packer, L.M., et al. 2004. Expression of the cell surface mucin gene family in adenocarcinomas. *Int. J. Oncol.* 25: 1119-1126.
- Byrd, J.C., et al. 2004. Mucins and mucin-binding proteins in colorectal cancer. *Cancer Metastasis Rev.* 23: 77-99.
- Hollingsworth, M.A., et al. 2004. Mucins in cancer: protection and control of the cell surface. *Nat. Rev. Cancer* 4: 45-60.
- Shimamura, T., et al. 2005. Overexpression of MUC13 is associated with intestinal-type gastric cancer. *Cancer Sci.* 96: 265-273.

SOURCE

Mucin 13 (R-245) is a rabbit polyclonal antibody raised against amino acids 211-455 mapping within an N-terminal extracellular domain of Mucin 13 of rat origin.

PRODUCT

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

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 13 (R-245) is recommended for detection of Mucin 13 of rat and, to a lesser extent, canine 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Mucin 13: 58 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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



Try **Mucin 13 (G-10): sc-390115**, our highly recommended monoclonal alternative to Mucin 13 (R-245).