Mucin 13 (G-10): sc-390115

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 down-regulated 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


CHROMOSOMAL LOCATION

Genetic locus: MUC13 (human) mapping to 3q21.2; Muc13 (mouse) mapping to 16 B3.

PRODUCT

Mucin 13 (G-10) is a mouse monoclonal antibody raised against amino acids 231-480 mapping within an extracellular domain of Mucin 13 of mouse origin.

APPLICATIONS

Mucin 13 (G-10) is recommended for detection of Mucin 13 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).


Molecular Weight of Mucin 13: 58 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, COLO 205 whole cell lysate: sc-364177 or Caco-2 cell lysate: sc-2262.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA

Mucin 13 (G-10): sc-390115. Western blot analysis of Mucin 13 expression in HCT-8 (A), COLO 205 (B) and Caco-2 (C) whole cell lysates.

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.