BACKGROUND

Mucin 6 (also designated MUC6 and gastric mucin) is a large glycoprotein that plays a major role in the protection of the gastrointestinal tract. Mucin 6 carries GlcNAc\(^\alpha\)\(^1\)\(\rightarrow\)4Gal\(^\beta\)\(\rightarrow\)R structures, indicating that \alpha\(^1\,4\)-N-acetylglucosaminyltransferase is important to the formation of the mucous glycoproteins in vivo. Mucin 6 expression is highest in the stomach and gall bladder, with lower expression in the terminal ileum and right colon. In gastric cancer, Mucin 6 has an altered expression. In normal stomach, Mucin 6 apomucin is associated with Lewis type 2; Mucin 6 is also expressed in gastric metaplasia, duodenum and pancreas. Mucin 6 is a secretory mucin, located in the deeper mucosal folds of human gall bladder, and its expression is altered with increasing degrees of inflammation. Mucin 6 mRNA is expressed transiently in the nephrogenic zone of the kidney in the early mid-trimester of development, and Mucin 6 glycoprotein is expressed in the epithelium of ureteric buds and collecting ducts, but absent from adult kidney. Proliferating bile ductular cells express Mucin 6 apomucin in diseased liver, especially in chronic viral hepatitis with active necroinflammation, suggesting that this secreted mucin acts as a cytoprotective agent and represents a phenotype of reactive biliary epithelium in chronic viral hepatitis.

CHROMOSOMAL LOCATION

Genetic locus: MUC6 (human) mapping to 11p15.5.

SOURCE

Mucin 6 (CLHS) is a mouse monoclonal antibody raised against a synthetic peptide of the Mucin 6 tandem repeat of human origin.

PRODUCT

Each vial contains 200 µg IgG\(\kappa\) kappa light chain 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.

APPLICATIONS

Mucin 6 (CLH5) is recommended for detection of Mucin 6 of human origin by Western Blotting (starting dilution 1:200, 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500). Suitable for use as control antibody for Mucin 6 siRNA (h): sc-43166, Mucin 6 shRNA Plasmid (h): sc-43166-SH and Mucin 6 shRNA Lentiviral Particles: sc-43166-V.

Molecular Weight of Mucin 6: 252 kDa.


RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1. Western Blotting: use m-IgG\(\kappa\) BP-HRP: sc-516102 or m-IgG\(\kappa\) 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\(\kappa\) BP-FITC: sc-516140 or m-IgG\(\kappa\) BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.


DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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

PROTOCOLS

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