

Mucin 15 (H-5): sc-365746

BACKGROUND

The mucins are a family of highly glycosylated, secreted proteins with a basic structure consisting of a variable number of tandem repeats (VNTRs). Membrane-associated and secretory mucins are high molecular weight glycoproteins of the glycocalyx (polysaccharide biofilm) that protects mucosal epithelium from particulate matter and microorganisms. Epithelial mucins are large, secreted and cell surface glycoproteins crucial for adhesion modulation, signaling and epithelial cell protection. The number of repeats is highly polymorphic and varies among different alleles. The mucin family consists of Mucins 1-4, Mucin-5 (AC and B), Mucins 6-8, -11, -12, -13, -15, -16 and 17. Mucin-15 is involved in cell adhesion to the extracellular matrix. It is primarily expressed in prostate, testis, lung, spleen, thymus, ovary, small intestine, colon, bone marrow, lymph node, lung and peripheral blood leukocytes. Mucin-15 is a highly glycosylated protein.

REFERENCES

1. Lan, M.S., et al. 1990. Cloning and sequencing of a human pancreatic tumor mucin cDNA. *J. Biol. Chem.* 265: 15294-15299.
2. Moniaux, N., et al. 2001. Structural organization and classification of the human mucin genes. *Front. Biosci.* 6: D1192-D1206.
3. Leikauf, G.D., et al. 2002. Mucin apoprotein expression in COPD. *Chest* 121: 166S-182S.
4. Pallesen, L.T., et al. 2002. Isolation and characterization of MUC15, a novel cell membrane-associated mucin. *Eur. J. Biochem.* 269: 2755-2763.
5. Byrd, J.C., et al. 2004. Mucins and mucin binding proteins in colorectal cancer. *Cancer Metastasis Rev.* 23: 77-99.

CHROMOSOMAL LOCATION

Genetic locus: MUC15 (human) mapping to 11p14.2; Muc15 (mouse) mapping to 2 E3.

SOURCE

Mucin 15 (H-5) is a mouse monoclonal antibody raised against amino acids 23-232 mapping within an N-terminal extracellular domain of Mucin 15 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Mucin 15 (H-5) is available conjugated to agarose (sc-365746 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365746 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365746 PE), fluorescein (sc-365746 FITC), Alexa Fluor® 488 (sc-365746 AF488), Alexa Fluor® 546 (sc-365746 AF546), Alexa Fluor® 594 (sc-365746 AF594) or Alexa Fluor® 647 (sc-365746 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365746 AF680) or Alexa Fluor® 790 (sc-365746 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Mucin 15 (H-5) is recommended for detection of Mucin 15 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Mucin 15 siRNA (h): sc-45694, Mucin 15 siRNA (m): sc-45695, Mucin 15 shRNA Plasmid (h): sc-45694-SH, Mucin 15 shRNA Plasmid (m): sc-45695-SH, Mucin 15 shRNA (h) Lentiviral Particles: sc-45694-V and Mucin 15 shRNA (m) Lentiviral Particles: sc-45695-V.

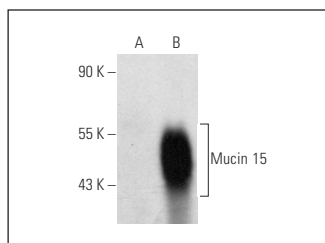
Molecular Weight of Mucin 15: 36 kDa.

Positive Controls: Mucin 15 (m): 293T Lysate: sc-127174.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



Mucin 15 (H-5): sc-365746. Western blot analysis of Mucin 15 expression in non-transfected: sc-117752 (A) and mouse Mucin 15 transfected: sc-127174 (B) 293T 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.

PROTOCOLS

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