

# Mucin 1 (M9E7): sc-52093

## BACKGROUND

The mucins are a family of highly glycosylated, secreted proteins with a basic structure consisting of a variable number of tandem repeats (VNTRs) encoded by 60 base pairs (Mucin 1), 69 base pairs (Mucin 2) and 51 base pairs (Mucin 3). The number of repeats is highly polymorphic and varies among different alleles. Mucin 1 proteins are expressed as type I membrane proteins in addition to secreted forms. Mucin 1 is aberrantly expressed in epithelial tumors including breast carcinomas. Mucin 2 coats the epithelia of the intestines and airways and is associated with colonic tumors. Mucin 3 is a major component of various mucus gels and is broadly expressed in normal and tumor cells.

## REFERENCES

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3. Lan, M.S., et al. 1990. Cloning and sequencing of a human pancreatic tumor mucin cDNA. J. Biol. Chem. 265: 15294-15299.
4. Gum, J.R., Jr., et al. 1992. The human Mucin 2 intestinal mucin has cysteine-rich subdomains located both upstream and downstream of its central repetitive region. J. Biol. Chem. 267: 21375-21383.
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6. Cloosen, S., et al. 2004. Mucin-1 is expressed on dendritic cells, both *in vitro* and *in vivo*. Int. Immunol. 16: 1561-1571.
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8. Rughetti, A., et al. 2005. Recombinant tumor-associated Mucin 1 glycoprotein impairs the differentiation and function of dendritic cells. J. Immunol. 174: 7764-7772.
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## CHROMOSOMAL LOCATION

Genetic locus: MUC1 (human) mapping to 1q22.

## SOURCE

Mucin 1 (M9E7) is a mouse monoclonal antibody raised against high molecular weight glycoprotein from milk-fat globule molecule of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

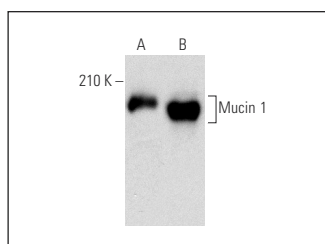
Mucin 1 (M9E7) is recommended for detection of VNTR5 and VNTR20 recombinant unglycosylated fragments of Mucin 1 protein and underglycosylated Mucin 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Mucin 1 siRNA (h): sc-35985, Mucin 1 shRNA Plasmid (h): sc-35985-SH and Mucin 1 shRNA (h) Lentiviral Particles: sc-35985-V.

Molecular Weight of Mucin 1: 200 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, BT-20 cell lysate: sc-2223 or DU 145 cell lysate: sc-2268.

## DATA



Mucin 1 (M9E7): sc-52093. Western blot analysis of Mucin 1 expression in BT-20 (A) and DU 145 (B) 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **Mucin 1 (VU4H5): sc-7313** for Mucin 1 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647.