

Mucin 1 (3H2740): sc-71613

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

1. Siddiqui, J., et al. 1988. Isolation and sequencing of a cDNA coding for the human DF3 breast carcinoma-associated antigen. *Proc. Natl. Acad. Sci. USA* 85: 2320-2323.
2. Gum, J.R., Jr., et al. 1990. Molecular cloning of cDNAs derived from a novel human intestinal mucin gene. *Biochem. Biophys. Res. Commun.* 171: 407-415.
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 MUC2 intestinal mucin has cysteine-rich subdomains located both upstream and downstream of its central repetitive region. *J. Biol. Chem.* 267: 21375-21383.
5. Pandey, P., et al. 1995. Association of the DF3/MUC1 breast cancer antigen with GRB2 and the Sos/Ras exchange protein. *Cancer Res.* 55: 4000-4003.
6. Cloosen, S., et al. 2004. Mucin 1 is expressed on dendritic cells, both *in vitro* and *in vivo*. *Int. Immunol.* 16: 1561-1571.
7. Horne, A.W., et al. 2005. The expression pattern of MUC1 glycoforms and other biomarkers of endometrial receptivity in fertile and infertile women. *Mol. Reprod. Dev.* 72: 216-229.

CHROMOSOMAL LOCATION

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

SOURCE

Mucin 1 (3H2740) is a mouse monoclonal antibody raised against urinary Mucin 1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₃ 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

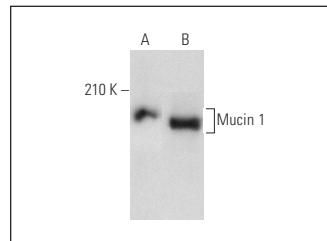
Mucin 1 (3H2740) is recommended for detection of Mucin 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

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

DATA



Mucin 1 (3H2740): sc-71613. Western blot analysis of Mucin 1 expression in BT-20 (A) and DU 145 (B) whole cell lysates.

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.



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