

Mucin 1 (C-Mu1): sc-53376

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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- 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.
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CHROMOSOMAL LOCATION

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

SOURCE

Mucin 1 (C-Mu1) is a mouse monoclonal antibody raised against Mucin 1 obtained from the breast cancer cell line T47D of human 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.

APPLICATIONS

Mucin 1 (C-Mu1) is recommended for detection of 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.

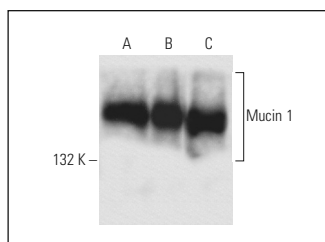
Molecular Weight of Mucin 1: 200 kDa.

Positive Controls: SCC-4 whole cell lysate: sc-364363, BT-20 cell lysate: sc-2223 or MCF7 whole cell lysate: sc-2206.

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).

DATA



Mucin 1 (C-Mu1): sc-53376. Western blot analysis of Mucin 1 expression in BT-20 (A, C) and SCC-4 (B) whole cell lysates under reducing (A, B) and non-reducing (C) conditions.

SELECT PRODUCT CITATIONS

- Stremmel, W., et al. 2016. Phosphatidylcholine passes through lateral tight junctions for paracellular transport to the apical side of the polarized intestinal tumor cell-line CaCo2. Biochim. Biophys. Acta 1861: 1161-1169.

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.

CONJUGATES

See **Mucin 1 (VU4H5): sc-7313** for Mucin 1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.