



Muc1. VU-4H5 Monoclonal Antibody, Human

BACKGROUND

Muc1 is a heavily O-glycosylated transmembrane protein expressed on most secretory epithelium, including mammary gland and some hematopoietic cells. It is expressed abundantly in lactating mammary glands and overexpressed in >90% breast carcinomas and metastases. In normal mammary gland it is expressed in apical surface of glandular epithelium. In breast cancer Muc1 is overexpressed; is underglycosylated and the apical localization is lost. Muc1 is transcribed as a larger precursor which is cleaved to form a larger mucin like subunit (265-400kDa) and a smaller subunit (14-28kDa) noncovalently associated with each other. Transgenic Muc1 has been shown to associate with all four erbB receptors and localize with erbB1 (EGFR) in lactating glands¹. Muc1 can act as a ligand for ICAM-1 on HUVEC cells; it can bind β -catenin, GSK3 and it associates with Grb2-SOS upon phosphorylation.

ORDERING INFORMATION

CATALOG NUMBER
X1602M

SIZE
100 μ g

FORM
Purified

HOST/CLONE
Mouse Clone VU-4H5

FORMULATION
Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION
1 mg/ml

ISOTYPE
IgG1

APPLICATIONS
Immunohistochemistry (Frozen & Paraffin), ELISA, Western Blot

IMMUNOGEN

Hybridoma produced by the fusion of splenocytes from BALB/c mice immunized with a Muc1 60mer tandem repeat NH₂-(VTSAPDTRPAPGSTAPPAHG)₃-COOH and mouse myeloma SP2 cells.

SPECIES REACTIVITY

Human

COMMENTS

Antibody can be used for immunohistochemistry on frozen and paraffin embedded tissues, ELISA and Western blotting. Optimal concentration should be evaluated by serial dilutions.

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

For research use only. Not for use in human diagnostics or therapeutics.

POSITIVE CONTROL

MCF-7 and T47D cells

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

REFERENCES

1. Mommers E C, et al. "Abberant expression of MUC1 mucin in ductal hyperplasia and ductal carcinoma In situ of the breast." Int J Cancer 1999: 84:466-469.
2. Schol, D.J. et al., "Epitope fingerprinting" using overlapping 20-mer peptides of the MUC 1 tandem repeat sequence. Tumor Biol. Suppl. 1998: 19, 35-45.
3. Ryuko K et al. "Characterization of a new MUC1 monoclonal antibody (VU-2-G7) directed to the glycosylated PDTR sequence of MUC1." Tumor Biology 2000: 21, 197-210.

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