

# Phospho-MUC1(Y1229) Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP3614b

# **Product Information**

**Application** DB, E **Primary Accession** P15941 Reactivity Human Host Rabbit Clonality Polyclonal Isotype Rabbit IgG **Clone Names** RB15190 **Calculated MW** 122102

# **Additional Information**

**Gene ID** 4582

Other Names Mucin-1, MUC-1, Breast carcinoma-associated antigen DF3, Cancer antigen

15-3, CA 15-3, Carcinoma-associated mucin, Episialin, H23AG, Krebs von den Lungen-6, KL-6, PEMT, Peanut-reactive urinary mucin, PUM, Polymorphic epithelial mucin, PEM, Tumor-associated epithelial membrane antigen, EMA,

Tumor-associated mucin, CD227, Mucin-1 subunit alpha, MUC1-NT, MUC1-alpha, Mucin-1 subunit beta, MUC1-beta, MUC1-CT, MUC1, PUM

Target/Specificity This MUC1 Antibody is generated from rabbits immunized with a KLH

conjugated synthetic phosphopeptide corresponding to amino acid residues

surrounding Y1229 of human MUC1.

**DB~~1:500** E**~~Use** at an assay dependent concentration.

**Format** Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

**Storage** Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** Phospho-MUC1(Y1229) Antibody is for research use only and not for use in

diagnostic or therapeutic procedures.

# **Protein Information**

Name MUC1

Synonyms PUM

#### **Function**

The alpha subunit has cell adhesive properties. Can act both as an adhesion and an anti-adhesion protein. May provide a protective layer on epithelial cells against bacterial and enzyme attack.

#### **Cellular Location**

Apical cell membrane; Single-pass type I membrane protein. Note=Exclusively located in the apical domain of the plasma membrane of highly polarized epithelial cells After endocytosis, internalized and recycled to the cell membrane Located to microvilli and to the tips of long filopodial protusions [Isoform Y]: Secreted. [Mucin-1 subunit beta]: Cell membrane. Cytoplasm. Nucleus. Note=On EGF and PDGFRB stimulation, transported to the nucleus through interaction with CTNNB1, a process which is stimulated by phosphorylation. On HRG stimulation, colocalizes with JUP/gamma-catenin at the nucleus

### **Tissue Location**

Expressed on the apical surface of epithelial cells, especially of airway passages, breast and uterus. Also expressed in activated and unactivated T-cells. Overexpressed in epithelial tumors, such as breast or ovarian cancer and also in non-epithelial tumor cells. Isoform Y is expressed in tumor cells only

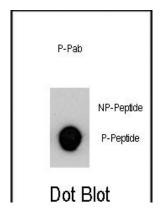
# **Background**

MUC1 is a member of the mucin family and a membrane bound, glycosylated phosphoprotein. The protein is anchored to the apical surface of many epithelia by a transmembrane domain, with the degree of glycosylation varying with cell type. It also includes a 20 aa variable number tandem repeat (VNTR) domain, with the number of repeats varying from 20 to 120 in different individuals. The protein serves a protective function by binding to pathogens and also functions in a cell signaling capacity. Overexpression, aberrant intracellular localization, and changes in glycosylation of this protein have been associated with carcinomas.

## References

Guo A, et al. (2008) Proc Natl Acad Sci U S A 105, 692-7 Rikova K, et al. (2007) Cell 131, 1190-203 Kato K, Lu W, Kai H, Kim KC (2007) Am J Physiol Lung Cell Mol Physiol 293, L686-92 Singh PK, et al. (2007) Cancer Res 67, 5201-10

# **Images**



Dot blot analysis of MUC1 Antibody (pY1229) Pab (Cat. #AP3614b) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.