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MUC1/EMA Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13623b

Product Information

Application	WB, IHC-P, E
Primary Accession	P15941
Other Accession	NP_001018016.1, NP_001037856.1, NP_001018017.1, NP_001037855.1
Reactivity	Human
Predicted	Mouse, Rat, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33144
Calculated MW	122102
Antigen Region	1176-1205

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/EMA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1176-1205 amino acids from the C-terminal region of human MUC1/EMA.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	MUC1/EMA Antibody (C-term) 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

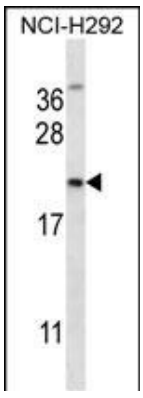
Background

This gene is a member of the mucin family and encodes 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. Multiple alternatively spliced transcript variants that encode different isoforms of this gene have been reported, but the full-length nature of only some has been determined. [provided by RefSeq].

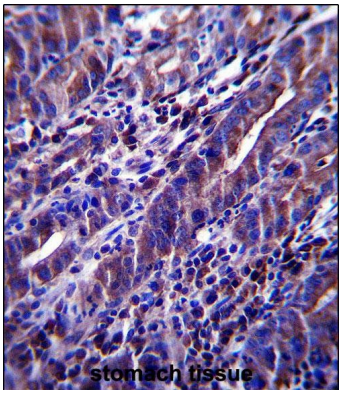
References

Behrens, M.E., et al. Oncogene 29(42):5667-5677(2010)
Lacunza, E., et al. Cancer Genet. Cytogenet. 201(2):102-110(2010)
Meyer, T.E., et al. PLoS Genet. 6 (8) (2010) :
Beatson, R.E., et al. Immunotherapy 2(3):305-327(2010)
Caffery, B., et al. Mol. Vis. 16, 1720-1727 (2010) :

Images



MUC1/EMA Antibody (C-term) (Cat. #AP13623b) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the MUC1/EMA antibody detected the MUC1/EMA protein (arrow).



MUC1/EMA Antibody (C-term) (Cat. #AP13623b)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of MUC1/EMA Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- Hepatic epithelioid angiomyolipoma is a rare and potentially severe but treatable tumor: A report of three cases and review of the literature.

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