

**Anti-MUC4 Picoband Antibody**  
**Catalog # ABO11845****Specification**

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**Anti-MUC4 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q99102</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Mucin-4(MUC4) detection. Tested with WB in Human;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-MUC4 Picoband Antibody - Additional Information**

**Gene ID** 4585

**Other Names**

Mucin-4, MUC-4, Ascites sialoglycoprotein, ASGP, Pancreatic adenocarcinoma mucin, Testis mucin, Tracheobronchial mucin, Mucin-4 alpha chain, Ascites sialoglycoprotein 1, ASGP-1, Mucin-4 beta chain, Ascites sialoglycoprotein 2, ASGP-2, MUC4

**Calculated MW**

231518 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Rat, Human<br>

**Subcellular Localization**

Membrane ; Single-pass membrane protein . Secreted . Isoforms lacking the Cys-rich region, EGF-like domains and transmembrane region are secreted. Secretion occurs by splicing or proteolytic processing.

**Tissue Specificity**

Expressed in the thymus, thyroid, lung, trachea, esophagus, stomach, small intestine, colon, testis, prostate, ovary, uterus, placenta, and mammary and salivary glands. Expressed in carcinomas arising from some of these epithelia, such as lung cancers, squamous cell carcinomas of the upper aerodigestive tract, mammary carcinomas, biliary tract, colon, and cervix cancers. Minimally or not expressed in the normal pancreas or chronic pancreatitis, but is highly expressed in pancreatic tumors and pancreatic tumor cell lines. .

**Protein Name**

Mucin-4

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

E.coli-derived human MUC4 recombinant protein (Position: M1249-D1444). Human MUC4 shares 69% and 36% amino acid (aa) sequences identity with mouse and rat MUC4, respectively.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After r<sup>o</sup>Constitution, at 4°C for one month. It<sup>o</sup>Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

**Sequence Similarities**

Contains 1 AMOP domain.

**Anti-MUC4 Picoband Antibody - Protein Information****Name** MUC4**Function**

Membrane-bound mucin, a family of highly glycosylated proteins that constitute the major component of the mucus, the slimy and viscous secretion covering epithelial surfaces (PubMed:<a href="http://www.uniprot.org/citations/10880978" target="\_blank">10880978</a>). These glycoproteins play important roles in the protection of the epithelium and are implicated in epithelial renewal and differentiation (PubMed:<a href="http://www.uniprot.org/citations/10880978" target="\_blank">10880978</a>). Regulates cellular behavior through both anti- adhesive effects on cell-cell and cell-extracellular matrix interactions and its ability to act as an intramembrane ligand for ERBB2. Plays an important role in proliferation and differentiation of epithelial cells by inducing specific phosphorylation of ERBB2. In polarized epithelial cells, segregates ERBB2 and other ERBB receptors and prevents ERBB2 from acting as a coreceptor. The interaction with ERBB2 leads to enhanced expression of CDKN1B. The formation of a MUC4- ERBB2-ERBB3-NRG1 complex leads to down-regulation of CDKN1B, resulting in repression of apoptosis and stimulation of proliferation. Its ability to promote tumor growth may be mainly due to repression of apoptosis as opposed to proliferation.

**Cellular Location**

[Mucin-4 beta chain]: Cell membrane; Single-pass membrane protein. Note=Isoforms lacking the Cys-rich region, EGF-like domains and transmembrane region are secreted Secretion occurs by splicing or proteolytic processing [Isoform 3]: Cell membrane; Single-pass membrane protein [Isoform 15]: Secreted

**Tissue Location**

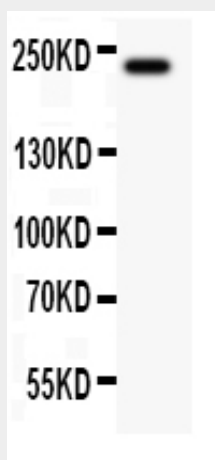
Expressed in the thymus, thyroid, lung, trachea, esophagus, stomach, small intestine, colon, testis, prostate, ovary, uterus, placenta, and mammary and salivary glands. Expressed in carcinomas arising from some of these epithelia, such as lung cancers, squamous cell carcinomas of the upper aerodigestive tract, mammary carcinomas, biliary tract, colon, and cervix cancers. Minimally or not expressed in the normal pancreas or chronic pancreatitis, but is highly expressed in pancreatic tumors and pancreatic tumor cell lines

## Anti-MUC4 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-MUC4 Picoband Antibody - Images



Anti-MUC4 Picoband antibody, ABO11845-1.jpg All lanes: Anti MUC4 (ABO11845) at 0.5ug/ml WB: PC12 Whole Cell Lysate at 40ug Predicted bind size: 234KD Observed bind size: 234KD

## Anti-MUC4 Picoband Antibody - Background

Mucin 4, also known as MUC4, is a mucin protein that in humans is encoded by the MUC4 gene. Like other mucins, Mucin 4 is a high-molecular weight glycoprotein. It is mapped to 3q29. In normal functioning, Mucin 4 is known to play anti-adhesive roles in the body, such as in lubricating the reproductive lining. It is found in the respiratory tract, particularly in the trachea and lung and the digestive tract, in the esophagus and colon, as well as in the visual and auditory systems. Mucin 4 serves to protect and lubricate the epithelium, which facilitates transport and traps foreign particles. It is found to be overexpressed during the luteal phase of menstruation. Mucin 4 may also have a role in fetal morphogenic development.