

MUC4(Mucin-4 alpha chain) Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20801a

Specification

MUC4(Mucin-4 alpha chain) Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	O99102
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

MUC4(Mucin-4 alpha chain) Antibody (N-term) - 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

Target/Specificity

This MUC4(Mucin-4 alpha chain) antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 529-560 amino acids from the N-terminal region of human MUC4(Mucin-4 alpha chain).

Dilution

WB~~1:1000

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

MUC4(Mucin-4 alpha chain) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

MUC4(Mucin-4 alpha chain) Antibody (N-term) - 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:[10880978](#)). These glycoproteins play important roles in the protection of the epithelium and are implicated in epithelial renewal and differentiation (PubMed:[10880978](#)). 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

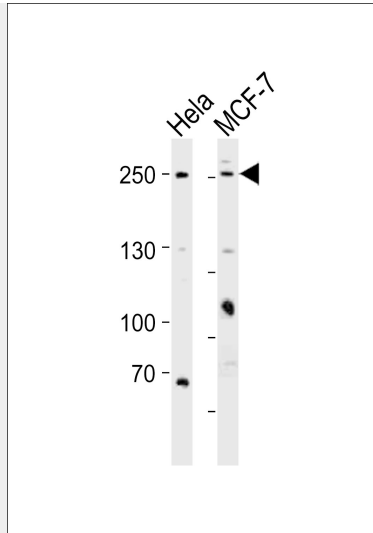
MUC4(Mucin-4 alpha chain) Antibody (N-term) - Protocols

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](#)

MUC4(Mucin-4 alpha chain) Antibody (N-term) - Images





Western blot analysis of lysates from HeLa, MCF-7 cell line (from left to right), using MUC4(Mucin-4 alpha chain) Antibody (N-term)(Cat. #AP20801a). AP20801a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

MUC4(Mucin-4 alpha chain) Antibody (N-term) - Background

May play a role in tumor progression. Ability to promote tumor growth may be mainly due to repression of apoptosis as opposed to proliferation. Has anti-adhesive properties. Seems to alter cellular behavior through both anti-adhesive effects on cell-cell and cell-extracellular matrix interactions and in its ability to act as an intramembrane ligand for ERBB2. Plays an important role in cell proliferation and differentiation of epithelial cells by inducing specific phosphorylation of ERBB2. The MUC4-ERBB2 complex causes site-specific phosphorylation of the ERBB2 'Tyr-1248'. 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.

MUC4(Mucin-4 alpha chain) Antibody (N-term) - References

- Moniaux N.,et al.Eur. J. Biochem. 267:4536-4544(2000).
- Choudhury A.,et al.J. Biochem. 128:233-243(2000).
- Desseyn J.-L.,et al.Eur. J. Biochem. 269:3150-3159(2002).
- Moniaux N.,et al.Biochem. J. 338:325-333(1999).
- Escande F.,et al.Eur. J. Biochem. 269:3637-3644(2002).