

Product datasheet

Recombinant Human MUC4 protein ab130768

1 Image

Description

Product name	Recombinant Human MUC4 protein
Purity	>= 80 % Purified via GST Tag. Glutathione Sepharose
Expression system	Wheat germ
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	GVSLFPYGADAGDLEFVRRTVDFTSPLFKPATGFPLGSSL RDSLYFTDNG QIIFPESDYQIFSYPNPLPTGFTGRDPVALVAPFWDDADFS TGRGTTYQ EYETFYGEHS
Predicted molecular weight	38 kDa

Specifications

Our **Abpromise guarantee** covers the use of **ab130768** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 8 Constituents: 0.307% Glutathione, 1.24% Tris HCl
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General Info

Function	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
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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 sequesters 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.

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.

Sequence similarities

Contains 1 AMOP domain.
Contains 2 EGF-like domains.
Contains 1 NIDO domain.
Contains 1 VWFD domain.

Developmental stage

Expressed early in the primitive gut before respiratory and digestive epithelial cells have acquired their tissue and cell specificity. Expressed at the basal surface of the epithelium from week 14 to 26 weeks and then predominantly localized in only parietal cells. Immediately before birth, found in the cytoplasm of the mucous columnar epithelial cells. In the embryo expressed in skin, then disappears late in gestation.

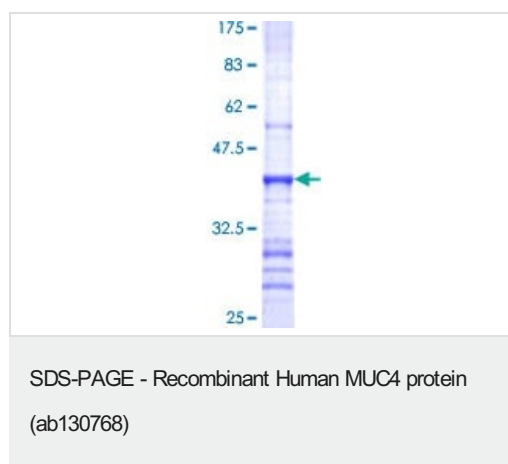
Post-translational modifications

Proteolytically cleaved into 2 chains, mucin-4 alpha chain and mucin-4 beta chain.
mucin-4 alpha chain is highly O-glycosylated.
mucin-4 beta chain is predominantly N-glycosylated.

Cellular localization

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

Images



12.5% SDS-PAGE Stained with Coomassie Blue.

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