abcam

Product datasheet

Anti-MUC2 antibody [EPR6145] ab134119

Recombinant RabMAb

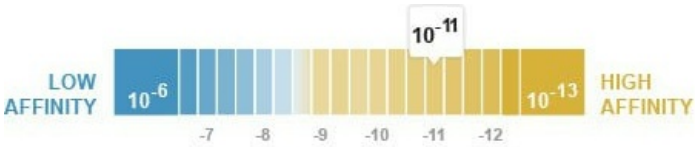
★★★★★ 1 Abreviews 17 References 12 Images

Overview

Product name	Anti-MUC2 antibody [EPR6145]
Description	Rabbit monoclonal [EPR6145] to MUC2
Host species	Rabbit
Tested applications	**Suitable for:** Indirect ELISA, WB, IHC-P **Unsuitable for:** IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Caco2, SKBR3, HT1376, SH SY5Y and SK OV3 cell lysates and human small intestine and colon lysates. IHC-P: Human colon tissue.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	$K_D = 4.30 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6145
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab134119 in the following tested applications.

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

Application	Abreviews	Notes
Indirect ELISA		Use a concentration of 1 µg/ml.
WB		1/1000 - 1/10000. Detects a band of approximately 110, 540 kDa (predicted molecular weight: 540 kDa).
IHC-P		1/15000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Or perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). See **IHC antigen retrieval protocols**. **For unpurified use at 1/250-1/500.**

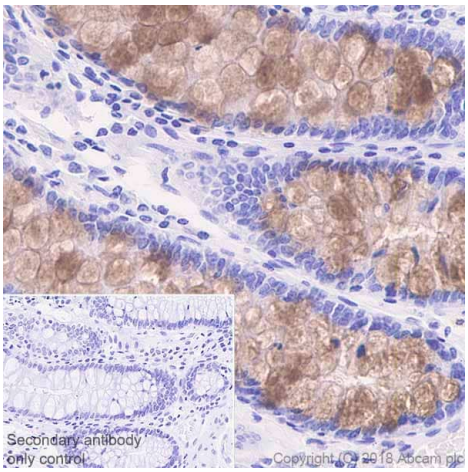
Application notes Is unsuitable for IP.

Target

Function	Coats the epithelia of the intestines, airways, and other mucus membrane-containing organs. Thought to provide a protective, lubricating barrier against particles and infectious agents at mucosal surfaces. Major constituent of both the inner and outer mucus layers of the colon and may play a role in excluding bacteria from the inner mucus layer.
Tissue specificity	Colon, small intestine, colonic tumors, bronchus, cervix and gall bladder.
Sequence similarities	Contains 1 CTCK (C-terminal cystine knot-like) domain. Contains 1 TIL (trypsin inhibitory-like) domain. Contains 2 VWFC domains. Contains 4 VWFD domains.
Post-translational modifications	O-glycosylated. May undergo proteolytic cleavage in the outer mucus layer of the colon, contributing to the expanded volume and loose nature of this layer which allows for bacterial colonization in contrast to the inner mucus layer which is dense and devoid of bacteria. At low pH of 6 and under, undergoes autocatalytic cleavage in vitro in the N-terminal region of the fourth VWD domain. It is likely that this also occurs in vivo and is triggered by the low pH of the

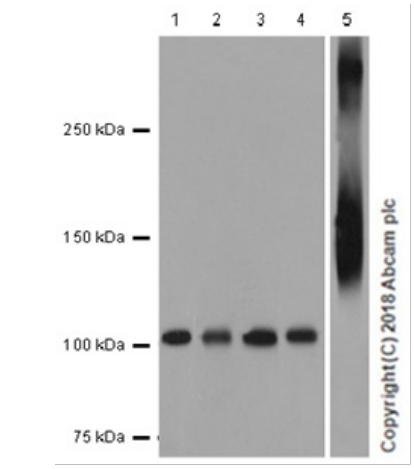
	late secretory pathway.
Cellular localization	Secreted. In the intestine, secreted into the inner and outer mucus layers.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MUC2 antibody [EPR6145] (ab134119)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue sections labeling MUC2 with purified ab134119 at 1/15,000 dilution (0.01 µg/ml). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-MUC2 antibody [EPR6145] (ab134119)

All lanes : Anti-MUC2 antibody [EPR6145] (ab134119) at 1/2000 dilution ((unpurified))

Lane 1 : Caco-2 (Human colorectal adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : SK-BR-3 (Human breast adenocarcinoma epithelial cell) whole cell lysate
Lane 3 : HT-1376 (Human urinary bladder carcinoma epithelial cell) whole cell lysate
Lane 4 : SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysate
Lane 5 : Human small intestine tissue lysate

Lysates/proteins at 20 µg per lane.

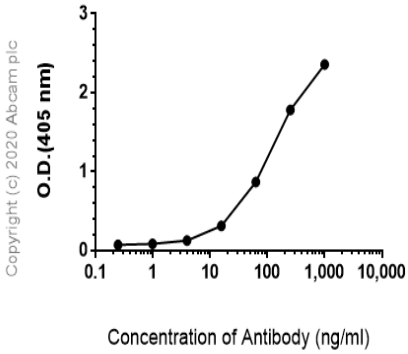
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 540 kDa
Observed band size: 110 kDa

Exposure time: 3 minutes

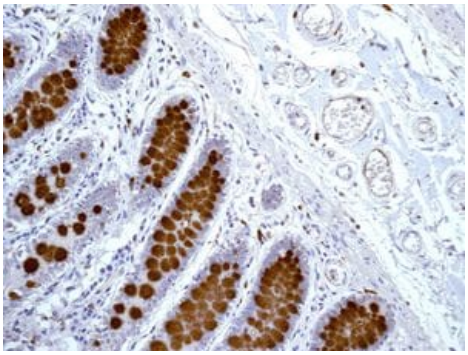
The 110kda band is the C-terminal cleaved fragment, formed by an autocatalytic mechanism triggered by low pH. (PMID: 12582180).

Blocking/Dilution buffer: 5% NFDM/TBST.



Indirect ELISA - Anti-MUC2 antibody [EPR6145] (ab134119)

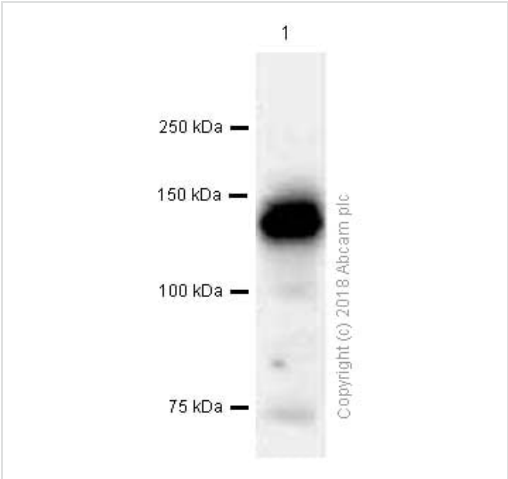
Indirect ELISA using ab134119 at varying antibody concentrations (1000-0 ng/mL) and MUC2 antigen at 1000 ng/mL. Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/2500 dilution was used as a secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MUC2 antibody [EPR6145] (ab134119)

Immunohistochemical analysis of paraffin embedded Human colon tissue labelling MUC2 with unpurified ab134119 at 1/250.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-MUC2 antibody [EPR6145] (ab134119)

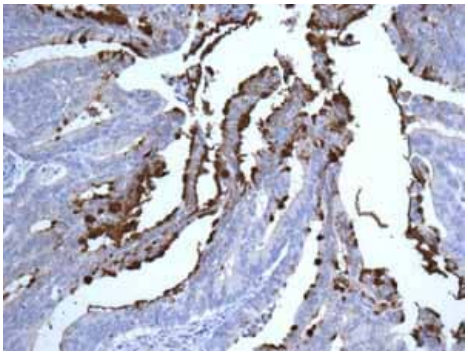
Anti-MUC2 antibody [EPR6145] (ab134119) at 1/10000 dilution (Purified) + Human colon lysates at 15 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 540 kDa
Observed band size: 130 kDa

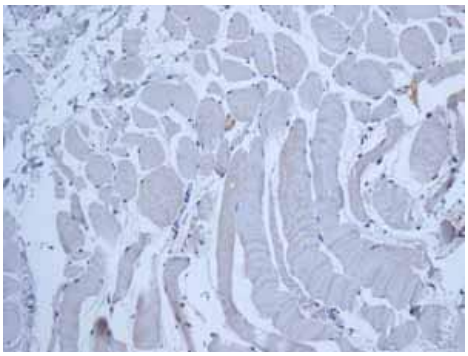
MUC2 could be cleaved into three fragments with the molecular weight 250, 130 and 110 KD as is described in PMID: 12582180.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MUC2 antibody [EPR6145] (ab134119)

Immunohistochemical analysis of paraffin embedded Human Colonic adenocarcinoma tissue using unpurified ab134119 showing +ve staining.

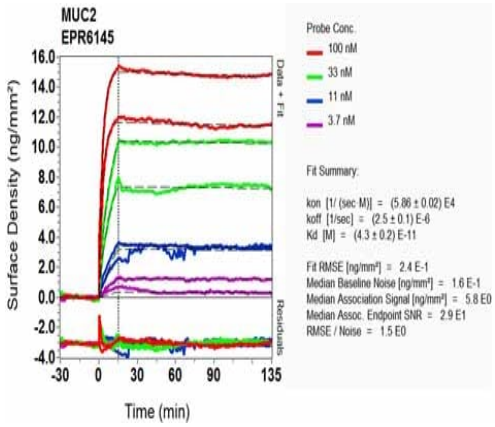
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MUC2 antibody [EPR6145] (ab134119)

Immunohistochemical analysis of paraffin embedded Human Skeletal muscle tissue using unpurified ab134119 showing -ve staining.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

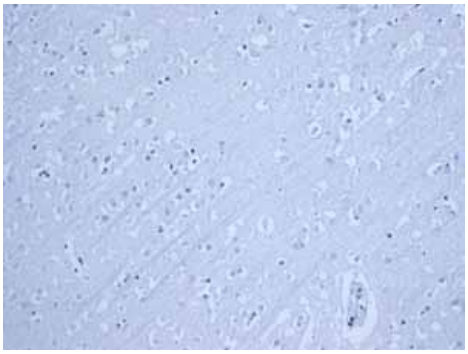


OI-RD Scanning - Anti-MUC2 antibody [EPR6145] (ab134119)

Equilibrium disassociation constant (K_D)

Learn more about K_D

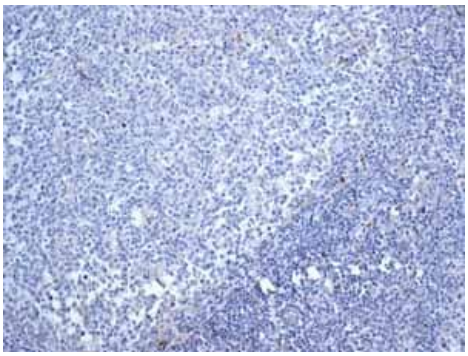
Click here to learn more about K_D



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MUC2 antibody [EPR6145] (ab134119)

Immunohistochemical analysis of paraffin embedded normal Human brain tissue using unpurified ab134119 showing -ve staining.

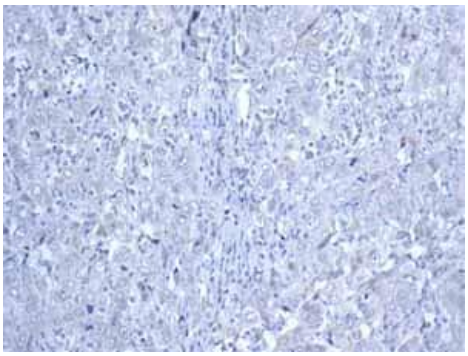
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MUC2 antibody [EPR6145] (ab134119)

Immunohistochemical analysis of paraffin embedded normal Human tonsil tissue using unpurified ab134119 showing -ve staining.

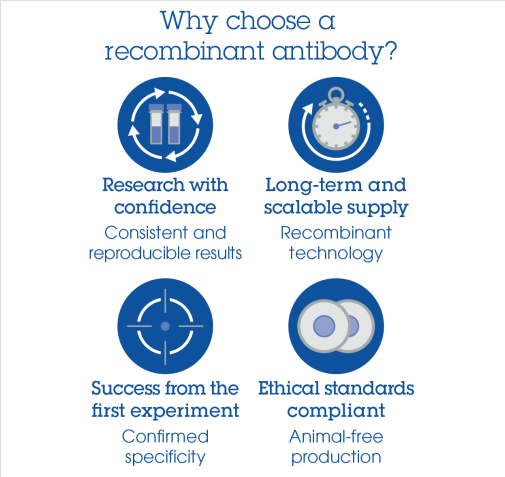
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MUC2 antibody [EPR6145] (ab134119)

Immunohistochemical analysis of paraffin embedded Human Breast carcinoma tissue using unpurified ab134119 showing -ve staining.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Anti-MUC2 antibody [EPR6145] (ab134119)

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