# abcam

### Product datasheet

## Anti-MUC2 antibody ab90007

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Overview

Product name Anti-MUC2 antibody

**Description** Rabbit polyclonal to MUC2

Host species Rabbit

**Specificity** Replenishment batches of our polyclonal antibody, ab90007 are tested in IHC-P. Previous

batches were additionally validated in ICC/IF. This application is still expected to work and is covered by our Abpromise guarantee. You may also be interested in our alternative recombinant

antibody, <u>ab134119</u>.

Tested applications Suitable for: IHC-P, ICC/IF

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

**Immunogen** Synthetic peptide within Human MUC2 aa 350-450 conjugated to keyhole limpet haemocyanin.

The exact sequence is proprietary.

Database link: Q02817

(Peptide available as ab103274)

Positive control This antibody gave a positive signal in human colon tissue sections. ICC/IF: HT29 cell line

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**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 or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

**Purity** Immunogen affinity purified

Clonality Polyclonal

Isotype ΙgG

#### **Applications**

Our <u>Abpromise guarantee</u> covers the use of ab90007 in the following tested applications. The Abpromise guarantee

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

Application	Abreviews	Notes
IHC-P	****(1)	Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★☆☆☆☆ <u>(1)</u>	Use a concentration of 5 µg/ml.

Talue	L

**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

O-glycosylated.

modifications 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

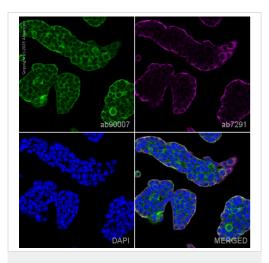
to the inner mucus layer which is dense and devoid of bacteria.

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.

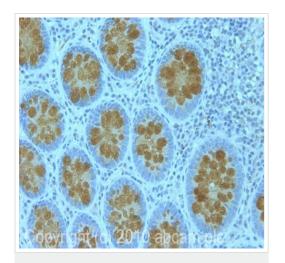
#### **Images**



Immunocytochemistry/ Immunofluorescence - Anti-MUC2 antibody (ab90007)

ab90007 staining MUC2 in HT-29 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab90007 at 1µg/ml and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with ab150081, Goat polyclonal Secondary Antibody to Rabbit lgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and ab150120, Goat polyclonal Secondary Antibody to Mouse lgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour magenta). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-MUC2 antibody (ab90007)

IHC image of MUC2 staining in human normal colon FFPE section, performed on a BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab90007, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX

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