

# Product Datasheet

## MUC2 Antibody - BSA Free

### NBP1-31231

Unit Size: 100 ul

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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**NBP1-31231**

MUC2 Antibody - BSA Free

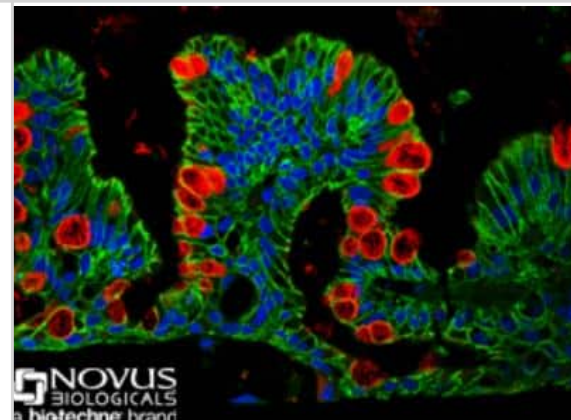
Product Information	
Unit Size	100 ul
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.025% Proclin 300
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	PBS, 20% Glycerol
Target Molecular Weight	540 kDa

Product Description	
Host	Rabbit
Gene ID	4583
Gene Symbol	MUC2
Species	Human, Mouse, Rat, Porcine
Reactivity Notes	Immunogen displays the following percentage of sequence identity for non-tested species: Bovine (86%).
Immunogen	Carrier-protein conjugated synthetic peptide encompassing a sequence within the C-terminus region of human MUC2. The exact sequence is proprietary.

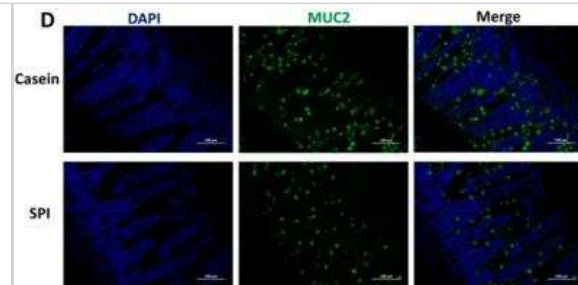
Product Application Details	
Applications	Western Blot, Dot Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:500-1:3000, Immunohistochemistry 1:100-1:1000, Immunocytochemistry/ Immunofluorescence 1:100-1:1000, Immunohistochemistry-Paraffin 1:100-1:1000, Immunohistochemistry-Frozen Assay dependent, Dot Blot Reported in scientific literature (PMID:32223302).

**Images**

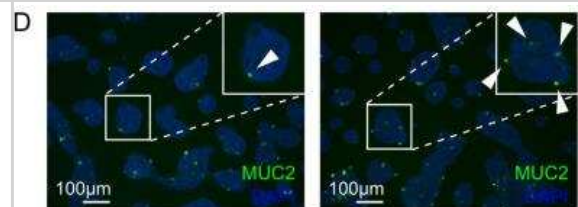
Immunohistochemistry: MUC2 Antibody [NBP1-31231] - MUC2 and Cadherin-17 were detected in immersion fixed, paraffin-embedded sections of MimEX adult stem cell-derived ascending colon tissue with Mouse Anti-Human Cadherin-17 Monoclonal Antibody (Catalog # MAB1032) at 1.25 ug/mL and Rabbit Anti-Human/Mouse (Catalog # NBP1-31231) at 0.62 ug/mL overnight at 4 C. Tissue was then stained using the NorthernLights 493-conjugated Anti-Mouse IgG Secondary Antibody (green; Catalog # NL009) and NorthernLights 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Cadherin-17 staining was detected in cellular membranes throughout the epithelial layer while MUC2 staining was localized specifically to goblet cells.



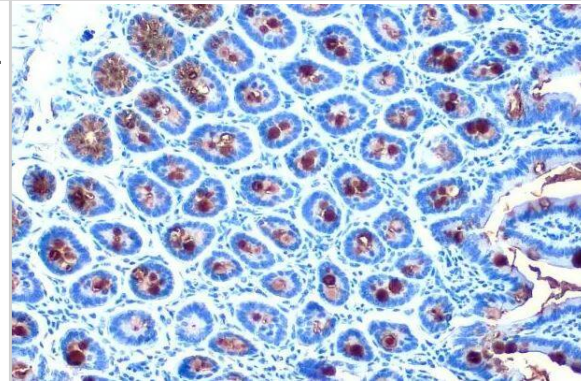
Immunohistochemistry: MUC2 Antibody [NBP1-31231] - Effect of SPI on mucin production in mouse ileum tissue. Representative micrographs for MUC2 staining and corresponding quantification of MUC2+ goblet cells per villus in the ileum tissue. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/32911830>) licensed under a CC-BY license.



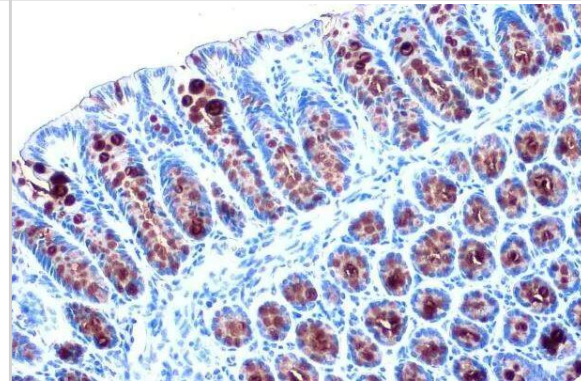
Immunocytochemistry/Immunofluorescence: MUC2 Antibody [NBP1-31231] - Milk-derived exosomes promote goblet cell expression in vitro. Representative micrographs for MUC2 immunofluorescent staining in LS174T control and exosome-treated cells (white arrows show positive stain). Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30699187/>) licensed under a CC-BY license.



Immunohistochemistry-Paraffin: MUC2 Antibody [NBP1-31231] - Mouse intestine. MUC2 stained by MUC2 antibody [C3], C-term diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min

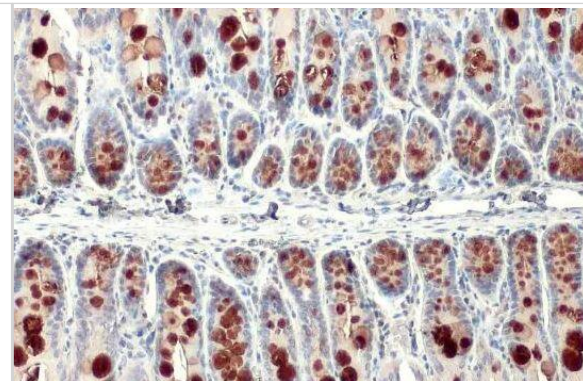


Immunohistochemistry-Paraffin: MUC2 Antibody [NBP1-31231] - Mouse colon. MUC2 stained by MUC2 antibody [C3], C-term diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min

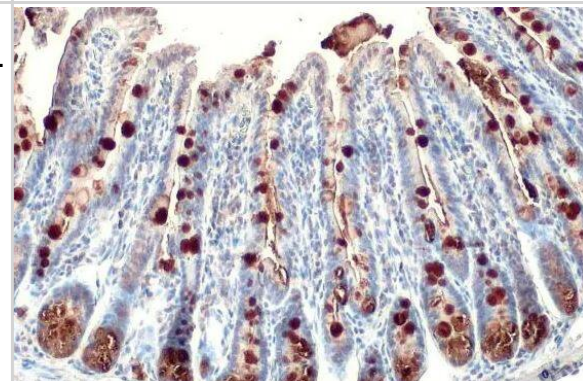




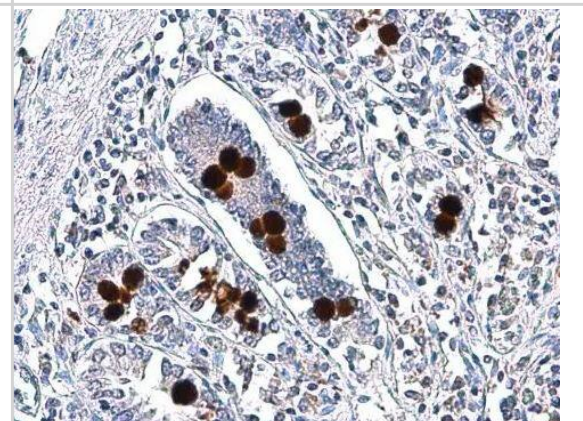
Immunohistochemistry-Paraffin: MUC2 Antibody [NBP1-31231] -Mouse colon. MUC2 stained by MUC2 antibody [C3], C-term diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



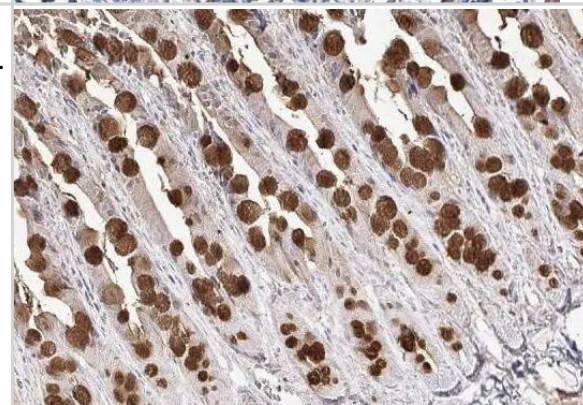
Immunohistochemistry-Paraffin: MUC2 Antibody [NBP1-31231] - Mouse intestine. MUC2 stained by MUC2 antibody [C3], C-term diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



Immunohistochemistry-Paraffin: MUC2 Antibody [NBP1-31231] -Human intestine. MUC2 antibody [C3], C-term diluted at 1:750. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



Immunohistochemistry-Paraffin: MUC2 Antibody [NBP1-31231] -Rat intestine. MUC2 stained by MUC2 antibody [C3], C-term diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



## Publications

Ludikhuizen MC, Meerlo M, Gallego MP et al. Mitochondria Define Intestinal Stem Cell Differentiation Downstream of a FOXO/Notch Axis *BMC Neurosci* 2020-10-31 [PMID: 33147486]

Jarret A, Jackson R, Duizer C et al. Enteric Nervous System-Derived IL-18 Orchestrates Mucosal Barrier Immunity *Cell* 2020-01-09 [PMID: 31923399]

Eshleman EM, Rice T, Potter C, Waddell A et Al. Microbiota-derived butyrate restricts tuft cell differentiation via histone deacetylase 3 to modulate intestinal type 2 immunity *Immunity* 2024-01-31 [PMID: 38295798]

Sato K, Hara-Chikuma M, Yasui M, Inoue J et Al. Sufficient water intake maintains the gut microbiota and immune homeostasis and promotes pathogen elimination *iScience* 2024-05-27 [PMID: 38799550]

Du J, Sarkar R, Li Y et al. N6-adenomethylation of GsdmC is essential for Lgr5+ stem cell survival to maintain normal colonic epithelial morphogenesis *Developmental cell* 2022-08-22 [PMID: 35917813]

Cheng L, Wu H, Cai X, Zhang Y et Al. A Gpr35-tuned gut microbe-brain metabolic axis regulates depressive-like behavior *Cell Host Microbe* 2024-01-10 [PMID: 38198925]

Quon T, Lin LC, Ganguly A et Al. Biased constitutive signaling of the G protein-coupled receptor GPR35 suppresses gut barrier permeability *J Biol Chem* 2024-11-29 [PMID: 39615676]

Gomez-Belmonte R, Wagner Y, Mahapatro M et al. Intestinal epithelial Gasdermin C is induced by IL-4R/STAT6 signaling but is dispensable for gut immune homeostasis *Scientific Reports* 2024-11-03 [PMID: 39489845]

Efren A. Reyes, David Castillo-Azofeifa, Jérémie Rispal, Tomas Wald, Rachel K. Zwick, Brisa Palikuqi, Angela Mujukian, Shervin Rabizadeh, Alexander R. Gupta, James M. Gardner, Dario Boffelli, Zev J. Gartner, Ophir D. Klein Epithelial TNF controls cell differentiation and CFTR activity to maintain intestinal mucin homeostasis *The Journal of Clinical Investigation* 2023-10-16 [PMID: 37643009]

Daniel Zeve, Eric Stas, Joshua de Sousa Casal, Prabhath Mannam, Wanshu Qi, Xiaolei Yin, Sarah Dubois, Manasvi S. Shah, Erin P. Syverson, Sophie Hafner, Jeffrey M. Karp, Diana L. Carlone, Jose Ordovas-Montanes, David T. Breault Robust differentiation of human enteroendocrine cells from intestinal stem cells *Nature Communications* 2022-01-11 [PMID: 35017529]

Oosterlinck B, Ceuleers H, Arras W et al. Mucin-microbiome signatures shape the tumor microenvironment in gastric cancer *Microbiome* 2023-04-21 [PMID: 37085819]

Judith C. W. de Jong, Kristel S. van Rooijen, Edwin C. A. Stigter, M. Can Gülersönmez, Marcel R. de Zoete, Janetta Top, Matthijs J. D. Baars, Yvonne Vercoulen, Folkert Kuipers, Saskia W. C. van Mil, Noortje Ijssennagger, Birendra Mishra Dietary cystine restriction increases the proliferative capacity of the small intestine of mice *PLOS ONE* 2024-01-05 [PMID: 38181033]

More publications at <http://www.novusbio.com/NBP1-31231>





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### **Products Related to NBP1-31231**

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
210-TA-005	TNF-alpha [Unconjugated]

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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