Revision 3

Store at -20C

#61193

MUC5AC (E3O9I) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355) orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IHC-Bond, IHC-P, IF-IC	H	Endogenous	Rabbit IgG	#P98088	4586

Product Usage Information

Application	Dilution
IHC Leica Bond	1:400
Immunohistochemistry (Paraffin)	1:400
Immunofluorescence (Immunocytochemistry)	1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #60100.

Specificity/Sensitivity

MUC5AC (E3O9I) XP® Rabbit mAb recognizes endogenous levels of total MUC5AC protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro2712 of human MUC5AC protein.

Background

Mucins are a family of macromolecules that line and protect the respiratory epithelium from microbes and pollutants in the local environment. Of the family members that are known to date, some are produced in a cell type and tissue-specific manner, suggesting distinct biological roles for members. Some members polymerize after secretion to form gel-like substances that coat the epithelial layer. MUC5AC and MUC5B are members of the family that polymerize in this manner. Others do not polymerize, and others yet, have a transmembrane domain and remain physically attached to the epithelia (1). While it is known that mucins are protective to the respiratory epithelium, it has been reported that changes in expression of mucins are associated with several forms of lung disease such as cystic fibrosis, COPD, asthma, pulmonary fibrosis, and others (1-4). Multiple epithelial malignancies have been described to show changes in expression, localization, and glycosylation of MUC5AC. This wide association with multiple malignancy types has led to the emergence of MUC5AC as both a prognostic and therapeutic target for cancer (5).

Background References

1. Ma, J. et al. (2018) *Chest.* 154, 169-176.
2. Kreda, S.M. et al. (2012) *Cold Spring Harb Perspect Med* 2, a009589.
3. Gilowska, I. (2014) *Postepy Hig Med Dosw (Online)* 68, 842-50.
4. Bonser, L.R. and Erle, D.J. (2017) *J Clin Med* 6, 112. doi: 10.3390/jcm6120112.
5. Krishn, S.R. et al. (2018) *Carcinogenesis* 39, 633-651.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

IHC-Bond: IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

SignalStain is a registered trademark of Cell Signaling Technology, Inc.

XP is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's

terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.