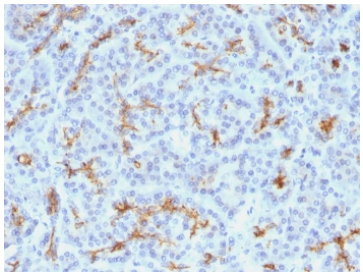
CFTR Antibody / Widely Cited Antibody [clone M3A7] (V7667)

Catalog No.	Formulation	Size
V7667-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7667-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7667SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	M3A7
Purity	Protein G affinity chromatography
UniProt	P13569
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This CFTR Antibody / Widely Cited Antibody is available for research use only.



CFTR Antibody Clone M3A7 Pancreas Tissue IHC. Immunohistochemistry testing of FFPE human pancreas with CFTR antibody (clone M3A7). Staining of FFPE tissue is enhanced by boiling tissue sections in 10mM Tris with 1mM EDTA, pH9 for 10-20 min followed by cooling at RT for 20 min.

Description

Cystic fibrosis transmembrane conductance regulator (CFTR) is a membrane-associated ATP-binding cassette transporter that functions as a cAMP-regulated chloride and bicarbonate channel in epithelial tissues. Cystic fibrosis transmembrane conductance regulator (CFTR) plays a central role in ion transport and fluid homeostasis across epithelial surfaces, particularly in the airway, pancreas, intestine, and other secretory tissues. CFTR Antibody / Widely Cited Antibody based on clone M3A7 is a well-established reagent that has been extensively used in the literature, supporting consistent detection of CFTR across a wide range of experimental systems and study designs.

CFTR antibody, also referred to as cystic fibrosis transmembrane conductance regulator antibody or ABCC7 antibody, recognizes a large multi-domain membrane protein composed of two nucleotide-binding domains, a regulatory domain, and multiple transmembrane segments that form the ion channel pore. CFTR is primarily localized to the apical membrane of polarized epithelial cells, where it regulates chloride and bicarbonate secretion and contributes to mucosal hydration. In tissue-based applications, CFTR is typically observed with apical membranous and luminal staining in ductal and glandular epithelial structures, reflecting its physiological role in directing ion transport across epithelial barriers.

Clone M3A7 is highly cited in peer-reviewed publications, reflecting broad adoption by the research community and supporting confidence in its performance across diverse experimental contexts. This level of usage indicates that the antibody has been applied in multiple study types, including analyses of epithelial biology, ion channel regulation, and disease-related changes in CFTR expression and localization. Its repeated use across independent studies provides an additional layer of validation beyond individual dataset performance, making it a reliable choice for researchers seeking a well-characterized CFTR detection reagent. For application-specific options, see our CFTR antibody for immunohistochemistry or flow cytometry.

Mutations in CFTR are the underlying cause of cystic fibrosis, a genetic disorder characterized by defective chloride transport, impaired epithelial function, and accumulation of thickened secretions in multiple organ systems. The most common mutation, delta F508, results in misfolding and defective trafficking of CFTR, leading to reduced surface expression at the apical membrane. These alterations can be evaluated using antibody-based approaches, where differences in localization and expression patterns provide insight into disease mechanisms and therapeutic responses.

In addition to its role in cystic fibrosis, CFTR contributes to broader epithelial biology through regulation of other ion channels, vesicle trafficking, and epithelial differentiation. Altered CFTR expression has also been observed in certain cancers and inflammatory conditions, where disruption of epithelial polarity and ion transport may influence disease progression. Given its established role in epithelial physiology and its extensive citation history, clone M3A7 represents a widely used reagent for CFTR detection. A CFTR antibody can be used to evaluate CFTR expression and localization in epithelial tissues and experimental models, supporting investigations into ion transport, epithelial organization, and disease-related changes.

This CFTR antibody is part of a broader CFTR antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the CFTR Antibody / Widely Cited Antibody should be determined by the researcher.

Immunogen

Human recombinant protein was used as the immunogen for this CFTR antibody.

Storage

Store the CFTR antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CFTR antibody, Cystic fibrosis transmembrane conductance regulator antibody, ABCC7 antibody, CFTR M3A7 antibody, CFTR research antibody