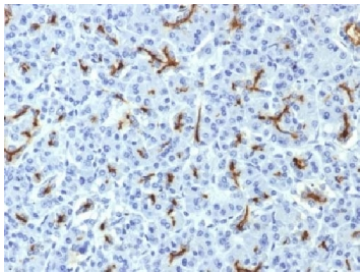
CFTR Antibody [clone CFTR/1643] (V3430)

Catalog No.	Formulation	Size
V3430-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3430-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3430SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	CFTR/1643
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
UniProt	P13569
Gene ID	1080
Localization	Cell surface, cytoplasmic
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CFTR antibody is available for research use only.



IHC testing of FFPE human pancreas with CFTR antibody (clone CFTR/1643). HIER: boil tissue sections in 10mM Tris with 1mM EDTA, pH9 for 10-20 min followed by cooling at RT for 20 min.

Description

CFTR antibody is widely used for research into the cystic fibrosis transmembrane conductance regulator, a chloride channel encoded by the CFTR gene. CFTR is expressed in epithelial tissues, including those of the lung, pancreas, intestine, and sweat glands. It functions as an ATP binding cassette transporter that regulates the movement of chloride and bicarbonate ions across membranes. Proper CFTR activity is critical for maintaining fluid balance, pH stability, and mucosal defense.

Mutations in the CFTR gene cause cystic fibrosis, a common genetic disorder characterized by defective ion transport, thickened secretions, and chronic lung infections. More than one thousand disease associated mutations have been identified, ranging from missense substitutions to deletions that disrupt protein folding, trafficking, or gating. Because of this clinical significance, CFTR research spans molecular biology, physiology, and therapeutic development.

The CFTR antibody clone CFTR/1643 provides specific detection of this chloride channel. Clone CFTR/1643 has been used to monitor protein expression, distribution, and stability in epithelial tissues. Its reproducible recognition of CFTR has contributed to studies clarifying how different mutations alter protein processing and function. Researchers also use this antibody to evaluate therapeutic approaches that restore channel activity, such as small molecule correctors and potentiators.

Beyond cystic fibrosis, CFTR has roles in fluid and electrolyte regulation that impact multiple organ systems. Research has linked altered CFTR function to pancreatitis, chronic sinusitis, and certain gastrointestinal disorders. Clone CFTR/1643 has supported investigations across these contexts, providing insights into both normal physiology and disease pathology. Its consistent performance ensures that results can be compared across experimental models.

NSJ Bioreagents supplies this CFTR antibody to enable high quality studies of epithelial transport and genetic disease. Researchers may also encounter the protein under alternate designations such as cystic fibrosis transmembrane conductance regulator antibody, ABCC7 antibody, ATP binding cassette subfamily C member 7 antibody, and epithelial chloride channel antibody. These terms reflect the many ways CFTR is described in literature.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the CFTR antibody to be titered up or down for optimal performance.

Immunogen

A partial recombinant protein corresponding to amino acids 258-385 from the human 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).