abcam

Product datasheet

Anti-CFTR antibody ab181782

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Overview

Product name	Anti-CFTR antibody
Description	Rabbit polyclonal to CFTR
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse
Immunogen	Synthetic peptide corresponding to Human CFTR. Database link: **P13569**
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 long term. Avoid freeze / thaw cycle.
Storage buffer	Constituents: 1.21% Tris, 0.75% Glycine, 2% Sucrose
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab181782 in the following tested applications.

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

Application	Abreviews	Notes
WB		1/500 - 1/1000. Predicted molecular weight: 168 kDa.
ICC/IF		Use at an assay dependent concentration.

Target

Function
Involved in the transport of chloride ions. May regulate bicarbonate secretion and salvage in epithelial cells by regulating the SLC4A7 transporter.

Tissue specificity
Found on the surface of the epithelial cells that line the lungs and other organs.

Involvement in disease
Defects in CFTR are the cause of cystic fibrosis (CF) [MIM:219700]; also known as mucoviscidosis. CF is the most common genetic disease in the Caucasian population, with a prevalence of about 1 in 2'000 live births. Inheritance is autosomal recessive. CF is a common generalized disorder of exocrine gland function which impairs clearance of secretions in a variety of organs. It is characterized by the triad of chronic bronchopulmonary disease (with recurrent respiratory infections), pancreatic insufficiency (which leads to malabsorption and growth retardation) and elevated sweat electrolytes.
Defects in CFTR are the cause of congenital bilateral absence of the vas deferens (CBAVD) [MIM:277180]. CBAVD is an important cause of sterility in men and could represent an incomplete form of cystic fibrosis, as the majority of men suffering from cystic fibrosis lack the vas deferens.

Sequence similarities
Belongs to the ABC transporter superfamily. ABCC family. CFTR transporter (TC 3.A.1.202) subfamily.
Contains 2 ABC transmembrane type-1 domains.
Contains 2 ABC transporter domains.

Domain
The PDZ-binding motif mediates interactions with GOPC and with the SLC4A7, SLC9A3R1/EBP50 complex.

Post-translational modifications
Phosphorylated; activates the channel. It is not clear whether PKC phosphorylation itself activates the channel or permits activation by phosphorylation at PKA sites.
Ubiquitinated, leading to its degradation in the lysosome. Deubiquitination by USP10 in early endosomes, enhances its endocytic recycling.

Cellular localization
Early endosome membrane.

Images

Western blot - Anti-CFTR antibody (ab181782)

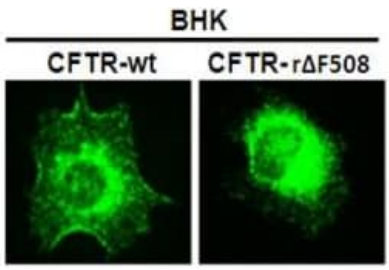
All lanes : Anti-CFTR antibody (ab181782) at 1/500 dilution

Lane 1 : BHK cells

Lane 2 : BHK cells transfected with CFTR-3HA tag

Lane 3 : Immunprecipitated wt CFTR from BHK cells

Predicted band size: 168 kDa



Immunocytochemistry/ Immunofluorescence - Anti-CFTR antibody (ab181782)

Immunofluorescent analysis of BHK cells expressing wild-type (wt) or mutated (rΔF508) CFTR, labeling CFTR with ab181782.

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