10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CFTR Antibody (Glu733)

Rabbit Polyclonal Antibody

Catalog # ALS16114

Specification

CFTR Antibody (Glu733) - Product Information

Application	**IHC, WB**
Primary Accession	P13569
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**168kDa KDa**

CFTR Antibody (Glu733) - Additional Information

Gene ID 1080

Other Names
Cystic fibrosis transmembrane conductance regulator, CFTR, ATP-binding cassette sub-family C member 7, Channel conductance-controlling ATPase, 3.6.3.49, cAMP-dependent chloride channel, CFTR, ABCC7

Target/Specificity
Human CFTR

Reconstitution & Storage
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.

Precautions
CFTR Antibody (Glu733) is for research use only and not for use in diagnostic or therapeutic procedures.

CFTR Antibody (Glu733) - Protein Information

Name CFTR

Synonyms ABCC7

Function
Epithelial ion channel that plays an important role in the regulation of epithelial ion and water transport and fluid homeostasis (PubMed:26823428). Mediates the transport of chloride ions across the cell membrane (PubMed:10792060, PubMed:11524016, PubMed:11707463, PubMed:12519745, PubMed:15010471, PubMed:<a href="http://www.uniprot.org/citations/12588899"

target="_blank">12588899, PubMed:17036051, PubMed:19398555, PubMed:19621064, PubMed:22178883, PubMed:25330774, PubMed:1712898, PubMed:8910473, PubMed:9804160, PubMed:12529365, PubMed:17182731, PubMed:26846474, PubMed:28087700). Channel activity is coupled to ATP hydrolysis (PubMed:8910473). The ion channel is also permeable to HCO(3)(-); selectivity depends on the extracellular chloride concentration (PubMed:15010471, PubMed:19019741). Exerts its function also by modulating the activity of other ion channels and transporters (PubMed:12403779, PubMed:22178883, PubMed:22121115, PubMed:27941075). Plays an important role in airway fluid homeostasis (PubMed:16645176, PubMed:19621064, PubMed:26823428). Contributes to the regulation of the pH and the ion content of the airway surface fluid layer and thereby plays an important role in defense against pathogens (PubMed:14668433, PubMed:16645176, PubMed:26823428). Modulates the activity of the epithelial sodium channel (ENaC) complex, in part by regulating the cell surface expression of the ENaC complex (PubMed:17434346, PubMed:27941075, PubMed:17182731). Inhibits the activity of the ENaC channel containing subunits SCNN1A, SCNN1B and SCNN1G (PubMed:17182731). Inhibits the activity of the ENaC channel containing subunits SCNN1D, SCNN1B and SCNN1G, but not of the ENaC channel containing subunits SCNN1A, SCNN1B and SCNN1G (PubMed:17182731, PubMed:27941075). May regulate bicarbonate secretion and salvage in epithelial cells by regulating the transporter SLC4A7 (PubMed:12403779). Can inhibit the chloride channel activity of ANO1 (PubMed:22178883). Plays a role in the chloride and bicarbonate homeostasis during sperm epididymal maturation and capacitation (PubMed:19923167, PubMed:27714810).

Cellular Location

Apical cell membrane; Multi-pass membrane protein {ECO:0000269|Ref.55}. Early endosome membrane; Multi-pass membrane protein {ECO:0000269|Ref.55}. Cell membrane; Multi-pass membrane protein {ECO:0000269|Ref.55}. Recycling endosome membrane; Multi-pass membrane protein {ECO:0000269|Ref.55}. Endoplasmic reticulum membrane; Multi-pass membrane protein {ECO:0000269|Ref.55}. Nucleus {ECO:0000250|UniProtKB:P34158}. Note=The channel is internalized from the cell surface into an endosomal recycling compartment, from where it is

recycled to the cell membrane (PubMed:17462998, PubMed:19398555, PubMed:20008117). In the oviduct and bronchus, detected on the apical side of epithelial cells, but not associated with cilia (PubMed:22207244). In Sertoli cells, a processed product is detected in the nucleus (By similarity). ER stress induces GORASP2-mediated unconventional (ER/Golgi-independent) trafficking of core-glycosylated CFTR to cell membrane (PubMed:21884936). {ECO:0000250|UniProtKB:P34158, ECO:0000269|PubMed:19398555, ECO:0000269|PubMed:20008117, ECO:0000269|PubMed:21884936, ECO:0000269|PubMed:22207244, ECO:0000305|PubMed:17462998}

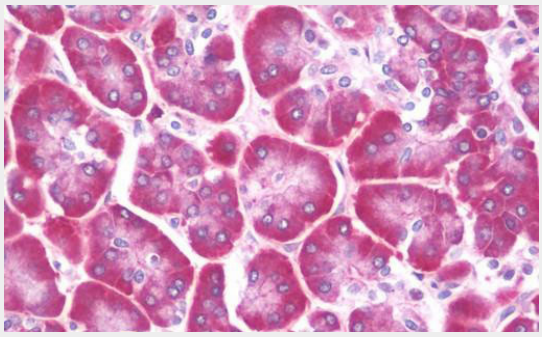
Tissue Location
Expressed in the respiratory airway, including bronchial epithelium, and in the female reproductive tract, including oviduct (at protein level) (PubMed:22207244, PubMed:15716351). Detected in pancreatic intercalated ducts in the exocrine tissue, on epithelial cells in intralobular striated ducts in sublingual salivary glands, on apical membranes of crypt cells throughout the small and large intestine, and on the reabsorptive duct in eccrine sweat glands (PubMed:1284548, PubMed:28130590). Detected on the equatorial segment of the sperm head (at protein level) (PubMed:19923167). Detected in nasal and bronchial superficial epithelium (PubMed:15716351). Expressed by the central cells on the sebaceous glands, dermal adipocytes and, at lower levels, by epithelial cells (PubMed:28130590)

CFTR Antibody (Glu733) - Protocols

Provided below are standard protocols that you may find useful for product applications.

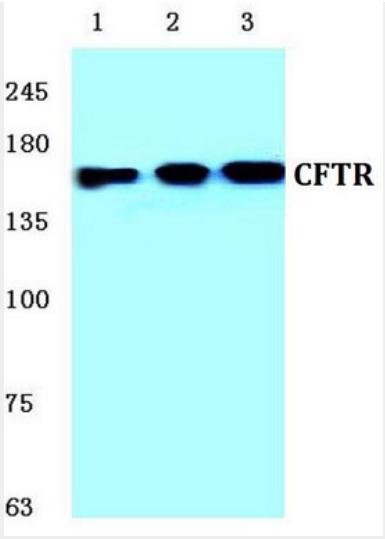
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CFTR Antibody (Glu733) - Images



Anti-CFTR antibody IHC staining of human pancreas.

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Western blot (WB) analysis of CFTR pAb at 1:500 dilution.Lane1:HEK293T whole cell lysate...

CFTR Antibody (Glu733) - Background

Involved in the transport of chloride ions. May regulate bicarbonate secretion and salvage in epithelial cells by regulating the SLC4A7 transporter. Can inhibit the chloride channel activity of ANO1. Plays a role in the chloride and bicarbonate homeostasis during sperm epididymal maturation and capacitation.

CFTR Antibody (Glu733) - References

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Zielenski J.,et al.Genomics 10:214-228(1991).
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Hillier L.W.,et al.Nature 424:157-164(2003).
Scherer S.W.,et al.Science 300:767-772(2003).