Human CFTR C-Terminus Antibody

Monoclonal Mouse IgG_{2A} Clone # 24-1

Catalog Number: MAB25031

DESCRIPTION

Species Reactivity	Human
Specificity	Detects *in vitro* synthesized CFTR and endogenous CFTR in Western blots.
Source	Monoclonal Mouse IgG_{2A} Clone # 24-1
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Glutathione S-transferase-coupled CFTR aa 1377-1480 Accession # P13569
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

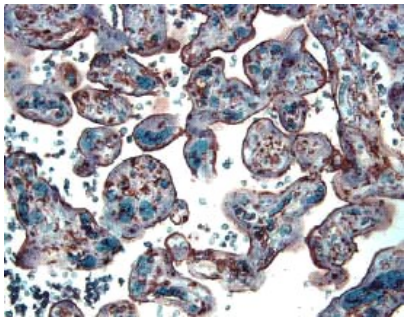
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Human CFTR transfected cell line
Immunohistochemistry	8-25 µg/mL	See Below
Immunoprecipitation	1-2 µg/10^6 cells	T84 human colon carcinoma cell line, see our available Western blot detection antibodies

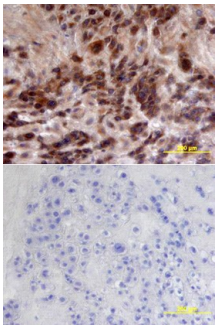
DATA

Immunohistochemistry



CFTR in Human Placenta. CFTR was detected in immersion fixed paraffin-embedded sections of human placenta using 8 µg/mL Mouse Anti-Human CFTR C-Terminus Monoclonal Antibody (Catalog # MAB25031) overnight at 4 °C. Tissue was stained with the Anti-Mouse HRP-AEC Cell & Tissue Staining Kit (red; Catalog # CTS003) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Immunohistochemistry



CFTR in Human Placenta. CFTR was detected in immersion fixed paraffin-embedded sections of human placenta using Mouse Anti-Human CFTR C-Terminus Monoclonal Antibody (Catalog # MAB25031) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Cystic fibrosis transmembrane conductance regulator (CFTR) is a multi-pass transmembrane protein that functions as a chloride channel. CFTR belongs to the ATP-binding cassette (ABC) superfamily. Mutations in CFTR cause the pulmonary disease, cystic fibrosis (CF). Specifically, deletion of phenyalanine at position 508 (DeltaF508-CFTR) results in a folding defect which impairs chloride channel function. The mechanism by which channel dysfunction relates to disease symptoms is a focus of intense research. CFTR dysfunction results in disruption of ion transport and subsequent blockage of airways by secreted mucus. CFTR may also play a role in the skeletal muscle atrophy and dysfunction that characterizes CF. In addition, CFTR-mediated chloride secretion underlies fluid accumulation and cyst growth in autosomal dominant polycystic kidney disease (ADPKD).

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