

## 36-2051: Anti-CFTR (Cystic Fibrosis Transmembrane Conductance Regulator) Monoclonal Antibody (Clone: CFTR/1643)

|                                |                                                                                                                                                                                                                          |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Clonality :</b>             | Monoclonal                                                                                                                                                                                                               |
| <b>Clone Name :</b>            | CFTR/1643                                                                                                                                                                                                                |
| <b>Application :</b>           | FACS,IHC                                                                                                                                                                                                                 |
| <b>Reactivity :</b>            | Human                                                                                                                                                                                                                    |
| <b>Gene :</b>                  | CFTR                                                                                                                                                                                                                     |
| <b>Gene ID :</b>               | 1080                                                                                                                                                                                                                     |
| <b>Uniprot ID :</b>            | P13569                                                                                                                                                                                                                   |
| <b>Alternative Name :</b>      | ABC35; ATP Binding Cassette Superfamily C Member 7 (ABCC7); cAMP-dependent chloride channel; CFTR; CFTR/MRP; Channel conductance-controlling ATPase; Cystic Fibrosis Transmembrane Conductance Regulator; MRP7; TNR CFTR |
| <b>Isotype :</b>               | Mouse IgG2b, kappa                                                                                                                                                                                                       |
| <b>Immunogen Information :</b> | Recombinant fragment (around aa 258-385) of human CFTR protein (exact sequence is proprietary)                                                                                                                           |

### Description

Recognizes a protein of 165-170kDa, identified as cystic fibrosis transmembrane conductance regulator (CFTR). CFTR is composed of two membrane-spanning domains (MSD), two nucleotide-binding domains (NBD), and an R domain. It is structurally similar to multidrug resistance (Mdr1) protein and both are members of the superfamily of ATP-binding cassette (ABC) transporters, also known as traffic ATPases, which are implicated in the movement of various substrates. The CFTR protein is a small conductance adenosine 3',5'-cyclic monophosphate (cAMP)-activated chloride ion channel found in the apical membranes of epithelia within the pancreas, airway, intestine, bile duct, sweat gland, and male genital ducts. CFTR is a valuable marker of human pancreatic duct cell development and differentiation.

### Product Info

|                            |                                                                                                                                                                        |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Amount :</b>            | 20 µg / 100 µg                                                                                                                                                         |
| <b>Content :</b>           | 200µg/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml. |
| <b>Storage condition :</b> | Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months.                                             |

### Application Note

Flow Cytometry (1-2ug/million cells);,Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95 &degC followed by cooling at RT for 20 minutes),

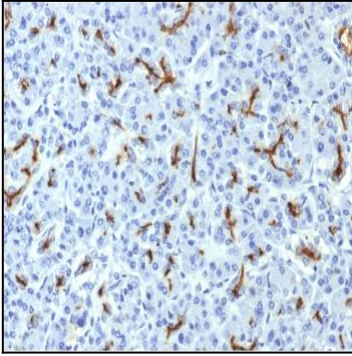


Fig.1: Formalin-fixed, paraffin-embedded human Pancreas stained with CFTR Mouse Monoclonal Antibody (CFTR/1643).

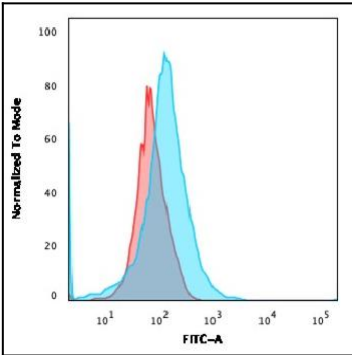


Fig. 2: Flow Cytometric Analysis of MOLT-4 cells using CFTR Mouse Monoclonal Antibody (CFTR/1643) followed by goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).

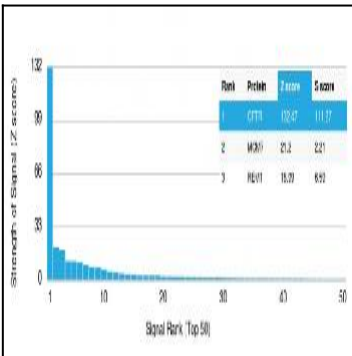


Fig. 3: Analysis of Protein Array containing >19,000 full-length human proteins using CFTR Mouse Monoclonal Antibody (CFTR/1643) Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (Monoclonal Antibody) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a Monoclonal Antibody to its intended target. A Monoclonal Antibody is considered to be specific to its intended target, if the Monoclonal Antibody has an S-score of at least 2.5. For example, if a Monoclonal Antibody binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that Monoclonal Antibody to protein X is equal to 29.