

# Product Information

## MemDX™ mPro Human CFTR Cell Line with RFP-blasticidin

Cat. No.: **S01YF-1122-KX144**

This product is for research use only and is not intended for diagnostic use.

### Product Information

#### Target Protein

CFTR

#### Target Protein Species

Human

#### Accession Number

NM\_000492

#### Target Classification

Ion Channel

#### Target Family

Chloride, Ligand-Gated

#### Target Research Area

Reproductive Research

#### Related Diseases

Cystic Fibrosis; Vas Deferens, Congenital Bilateral Aplasia Of

### Product Properties

#### Assay Reporter

RFP-blasticidin

#### Mycoplasma Testing

Negative

#### Biosafety Level

Level 1

#### Activity

Yes

#### Quantity

2x10<sup>6</sup> cells

#### Form

Frozen cells

### Selective Antibiotic(s)

Regular antibiotics active against mycoplasmas, bacteria and fungi.

### Handling Notes

Frozen cells should be thawed immediately upon receipt and grown according to handling procedure to ensure cell viability and proper assay performance.

Note: Do not freeze the cells upon receipt as it may result in irreversible damage to the cell line.

Disclaimer: We cannot guarantee cell viability if the cells are not thawed immediately upon receipt and grown according to handling procedure.

### Incubation

37°C with 5% CO<sub>2</sub>

### Applications

Drug screening and biological assays

### Application Notes

Cells were plated in a 384-well plate and incubated overnight at 37°C and 5% CO<sub>2</sub> to allow the cells to attach and grow. Cells were then stimulated with a control for high-throughput drugs screening and functional assays.

### Use Restrictions

These cells are distributed for research use only.

### Shipping

Dry ice

### Storage

Liquid nitrogen

## Target

### Full Name

CF transmembrane conductance regulator

### Introduction

This gene encodes a member of the ATP-binding cassette (ABC) transporter superfamily. The encoded protein functions as a chloride channel, making it unique among members of this protein family, and controls ion and water secretion and absorption in epithelial tissues. Channel activation is mediated by cycles of regulatory domain phosphorylation, ATP-binding by the nucleotide-binding domains, and ATP hydrolysis. Mutations in this gene cause cystic fibrosis, the most common lethal genetic disorder in populations of Northern European descent. The most frequently occurring mutation in cystic fibrosis, DeltaF508, results in impaired folding and trafficking of the encoded protein. Multiple pseudogenes have been identified in the human genome.

### Alternative Names

CF; MRP7; ABC35; ABCC7; CFTR/MRP; TNR-CFTR; dJ760C5.1; cystic fibrosis transmembrane conductance regulator; cAMP-dependent chloride channel; channel conductance-controlling ATPase; cystic fibrosis transmembrane conductance regulating; cystic fibrosis transmembrane conductance regulator (ATP-binding cassette sub-family C, member 7); CFTR; CF transmembrane conductance regulator

### Gene ID

[1080](#)

### UniProt ID

[Q20BH0](#)