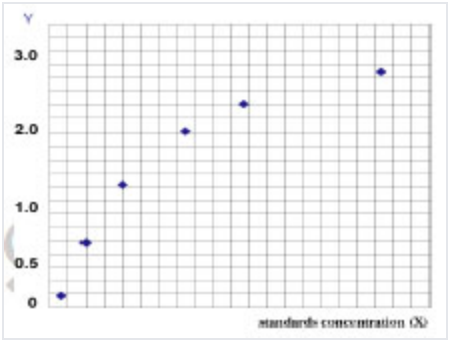
# Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) ELISA Kit for Human

## PRODUCT OVERVIEW

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| **Product Name** | Cystic Fibrosis Transmembrane Conductance Regulator (CFTR), ELISA Kit |
| **Full Product Name** | Human Cystic Fibrosis Transmembrane Conductance Regulator ELISA Kit |
| **Product Gene Name** | CFTR elisa kit |
| **Species Reactivity** | Human |
| **Assay Type** | Competitive or Sandwich |
| **Samples** | Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate |
| **Detection Range** | 0.5-10ng/mL |
| **Sensitivity** | 0.1ng/mL |
| **Preparation and Storage** | Store all reagents at 2-8 degree C. |
| **Molecular Weight** | 69,230 Da |
| **OMIM** | 602421 |
| **Sample Preparation** | We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team |
| **Highest Standards** | 10ng/mL |
| **Concentration of Standards** | Concentration of Standards\|\|0,0.5,1.0,2.5,5.0,10ng/mL |
| **Product Categories/Family for CFTR elisa kit** | Cell Biology |
| **ISO Certification** | Manufactured in an ISO 13485:2016 Certified Laboratory. |
| **Related Product Information for CFTR elisa kit** | MBS722073 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CFTR. The ELISA analytical biochemical technique of the MBS722073 kit is based on CFTR antibody-CFTR antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CFTR antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CFTR. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%). |
| **Other Notes** | Small volumes of CFTR elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |




**Typical Testing Data/Standard Curve (for reference only) of CFTR elisa kit**

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CFTR. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 180286 |
| **NCBI GeneID** | 1080 |
| **NCBI Accession #** | AAA51980.1 |
| **UniProt Secondary Accession #** | Q20BG8; Q20BH2; Q2I0A1; Q2I102 |
| **UniProt Related Accession #** | P13569 |
| **NCBI Official Full Name** | CFTR, partial |
| **NCBI Official Synonym Full Names** | cystic fibrosis transmembrane conductance regulator (ATP-binding cassette sub-family C, member 7) |
| **NCBI Official Symbol** | CFTR |
| **NCBI Official Synonym Symbols** | CF; MRP7; ABC35; ABCC7; CFTR/MRP; TNR-CFTR; dJ760C5.1 |
| **UniProt Protein Name** | Cystic fibrosis transmembrane conductance regulator |
| **UniProt Synonym Protein Names** | ATP-binding cassette sub-family C member 7; Channel conductance-controlling ATPase (EC:3.6.3.49); cAMP-dependent chloride channel |
| **Protein Family** | Cystic fibrosis transmembrane conductance regulator |
| **UniProt Gene Name** | CFTR |
| **UniProt Synonym Gene Names** | ABCC7; CFTR |
| **UniProt Entry Name** | CFTR_HUMAN |
| **NCBI Protein Information** | cystic fibrosis transmembrane conductance regulator; cAMP-dependent chloride channel; channel conductance-controlling ATPase |
| **NCBI Summary for CFTR** | This gene encodes a member of the ATP-binding cassette (ABC) transporter superfamily. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MRP subfamily that is involved in multi-drug resistance. The encoded protein functions as a chloride channel and controls the regulation of other transport pathways. Mutations in this gene are associated with the autosomal recessive disorders cystic fibrosis and congenital bilateral aplasia of the vas deferens. Alternatively spliced transcript variants have been described, many of which result from mutations in this gene. [provided by RefSeq, Jul 2008] |

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| **UniProt Comments for CFTR** | CFTR: a member of the MRP subfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. Functions as a chloride channel and controls the regulation of other transport pathways. Mutations have been observed in patients with the autosomal recessive disorders cystic fibrosis (CF) and congenital bilateral aplasia of the vas deferens (CBAVD). Alternative splice<br><br>Protein type: Membrane protein, integral; Hydrolase; Transporter; Channel, chloride; Transporter, ABC family; EC 3.6.3.49; Membrane protein, multi-pass<br><br>Chromosomal Location of Human Ortholog: 7q31.2<br><br>Cellular Component: recycling endosome; cytoplasmic vesicle membrane; microvillus; protein complex; cell surface; basolateral plasma membrane; early endosome membrane; apical plasma membrane; cytoplasm; early endosome; plasma membrane<br><br>Molecular Function: bicarbonate transmembrane transporter activity; protein binding; chloride channel activity; chloride channel inhibitor activity; enzyme binding; chloride transmembrane transporter activity; ATP-binding and phosphorylation-dependent chloride channel activity; channel-conductance-controlling ATPase activity; ATP binding; PDZ domain binding<br><br>Biological Process: intracellular pH elevation; response to drug; response to peptide hormone stimulus; cholesterol transport; iodide transport; water transport; transepithelial chloride transport; membrane hyperpolarization; respiratory gaseous exchange; positive regulation of vasodilation; vasodilation; cholesterol biosynthetic process; cellular response to hormone stimulus; bicarbonate transport; response to estrogen stimulus; transport; response to cytokine stimulus; transmembrane transport; sperm capacitation; lung development<br><br>Disease: Vas Deferens, Congenital Bilateral Aplasia Of; Bronchiectasis With Or Without Elevated Sweat Chloride 1; Cystic Fibrosis; Pancreatitis, Hereditary |
| **Research Articles on CFTR** | **1.** water fluxes accompanying CFTR activity are linked to AQP3 but not to a cAMP-stimulated aqueous pore in the CFTR protein |
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