



Human Cystic fibrosis transmembrane conductance regulator(CFTR) ELISA kit

Product Code	CSB-EL005292HU
Protein Biological Process 2	Anion transport
Abbreviation	CFTR
Protein Biological Process 1	Transport
Target Name	cystic fibrosis transmembrane conductance regulator (ATP-binding cassette sub-family C, member 7)
Uniprot No.	P13569
Alias	tcag7.78, ABC35, ABCC7, CF, CFTR/MRP, MRP7, TNR-CFTR, dJ760C5.1, ATP-binding cassette sub-family C, member 7 cystic fibrosis transmembrane conductance regulator
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Ion transport
Sample Types	serum, plasma, tissue homogenates, cell lysates
Detection Range	28 pg/mL-1800 pg/mL
Sensitivity	7 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Signal Transduction
Gene Names	CFTR
Tag Info	quantitative
Protein Description	Sandwich
Description	This Human CFTR ELISA Kit was designed for the quantitative measurement of Human CFTR protein in serum, plasma, tissue homogenates, cell lysates. It is a Sandwich ELISA kit, its detection range is 28 pg/mL-1800 pg/mL and the sensitivity is 7 pg/mL.



Target Details

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.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human CFTR in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:1	Average %	87
	Range %	82-93
1:2	Average %	98
	Range %	94-102
1:4	Average %	102
	Range %	98-106
1:8	Average %	95
	Range %	90-100

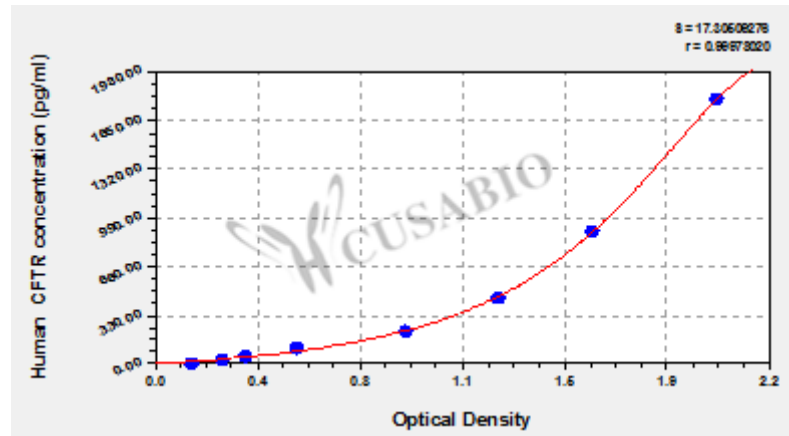
Recovery

The recovery of human CFTR spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	91	85-106
EDTA plasma (n=4)	91	88-96

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
1800	1.956	2.110	2.033	1.887
900	1.545	1.622	1.584	1.438
450	1.204	1.286	1.245	1.099
225	0.903	0.931	0.917	0.771
112.5	0.531	0.511	0.521	0.375
56	0.337	0.342	0.340	0.194
28	0.248	0.258	0.253	0.107
0	0.141	0.151	0.146	

Msds

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