

Datasheet for ABIN7553181
CFTR Protein (AA 1-1480) (His tag)



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Overview

Quantity:	1 mg
Target:	CFTR
Protein Characteristics:	AA 1-1480
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CFTR protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat CFTR Protein expressed in mammalian cells.
Sequence:	<p>MQRSPLEKAS VVSKLFFSWT RPILRKGYSRQ RLELSDIYQI PSVDSADNLS EKLEREWDRD LASKKNPKLI NALRRCCFFWR FMFYGIFLYL GEVTKAVQPL LLGRIIASYD PDNKEERSIA IYLGIGLCLL FIVRTLHHP AIFGLHHIGM QMRIAMFSLI YKKTLLKSSR VLDKISIGQL VSLLSNNLNK FDEGLALAHF VWIAPLQVAL LMGLIWELLQ ASAFCCGLGFL IVLALFQAGL GRMMMKEYRDQ RAGKISERLV ITSEMIENIQ SVKAYCWEEA MEKMIENLRQ TELKLTRKAA YVRYFNSSAF FFSGFFVFL SVLPYALIKG IILRKIFTTI SFCIVLRMAV TRQFPWAVQT WYDSLGAINK IQDFLQKQEY KTLEYNLTTT EVMENVTAFF WEEFGELFE KAKQNNNNRK TSNGDDSLFF SNFSLGTPV LKDINFKIER GQLLAVAGST GAGKTSLLMV IMGELEPSEG KIKHSGRISF CSQFSWIMPG TIKENIIFGV SYDEYRYSV IKACQLEEDI SKFAEKDNIV LGEGGITLSG GQRARISLAR AVYKDADLYL LDSPFGYLDV LTEKEIFESC VCKLMANKTR ILVTSKMEHL KKADKILILH EGSSYFYGTF SELQNLQPDF SSKLMGCDSF DQFSAERRNS ILTETLHRFS</p>

LEGDAPVSWT ETKKQSFKQT GEFGEKRNKS ILNPINSIRK FSIVQKTPLQ MNGIEEDSDE
PLERRLSLVP DSEQGEAILP RISVISTGPT LQARRRQSVL NLMTHSVNQG QNIHRKTTAS
TRKVSLAPQA NLTELDIYSR RLSQETGLEI SEEINEEDLK ECFDMMESI PAVTTWNTYL
RYITVHKS LI FVLIWCLVIF LAEVAASLVV LWLLGNTPLQ DKGNSTHSRN NSYAVIITST
SSYYVFYIYV GVADTLLAMG FFRGLPLVHT LITVSKILHH KMLHSVLQAP MSTLNTLKAG
GILNRFSKDI AILDDLPLT IFDFIQLLLI VIGAI VAV LQPYIFVATV PVIVAFIMLR AYFLQTSQQL
KQLESEGRSP IFTHLVTSK GLWTLRAFGR QPYFETLFHK ALNLHTANWF LYLSTLRWFQ
MRIEMIFVIF FIAVTFISIL TTGEGEGRVG IILTLAMNIM STLQWAVNSS IDVDSL MRSV
SRVFKFIDMP TEGKPTKSTK PYKNGQLSKV MIIENSHVKK DDIWPSGGQM TVKDLTAKYT
EGGNAIL ENI SFSISPGQRV GLLGRTGSGK STLLSAFLRL LNTEGEIQID GVSWDSITLQ
QWRKAFGVIP QKVFIFSGTF RKNLDPYEQW SDQEIWKVAD EVGLRSVIEQ FPGKLD FVLV
DGGCVLSHGK KQLMCLARSV LSKAKILLD EPSAHLDPVT YQIIRRTLKQ AFADCTVILC
EHRIEAMLEC QQFLVIEENK VRQYDSIQKL LNERSLFRQA ISPSDRVKLF PHRNSSKCKS
KPQIAALKEE TEEEVQDTRL **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity: > 90 % as determined by Bis-Tris Page, Western Blot

Grade: custom-made

Target Details

Target: CFTR

Alternative Name: CFTR ([CFTR Products](#))

Background: Cystic fibrosis transmembrane conductance regulator (CFTR) (ATP-binding cassette sub-family C member 7) (Channel conductance-controlling ATPase) (EC 5.6.1.6) (cAMP-dependent chloride channel),FUNCTION: Epithelial ion channel that plays an important role in the regulation of epithelial ion and water transport and fluid homeostasis (PubMed:26823428). Mediates the transport of chloride ions across the cell membrane (PubMed:10792060, PubMed:11524016, PubMed:11707463, PubMed:12519745, PubMed:15010471, PubMed:12588899, PubMed:17036051, PubMed:19398555, PubMed:19621064, PubMed:22178883, PubMed:25330774, PubMed:1712898, PubMed:8910473, PubMed:9804160, PubMed:12529365, PubMed:17182731, PubMed:26846474, PubMed:28087700). Channel activity is coupled to ATP hydrolysis (PubMed:8910473). The ion channel is also permeable to HCO₃⁽⁻⁾, selectivity depends on the extracellular chloride concentration (PubMed:15010471, PubMed:19019741). Exerts its function also by modulating the activity of other ion channels and transporters (PubMed:12403779, PubMed:22178883, PubMed:22121115, PubMed:27941075). Plays an important role in airway fluid homeostasis (PubMed:16645176, PubMed:19621064, PubMed:26823428). Contributes to the regulation of the pH and the ion content of the airway surface fluid layer and thereby plays an important role in defense against pathogens (PubMed:14668433, PubMed:16645176, PubMed:26823428). Modulates the activity of the epithelial sodium channel (ENaC) complex, in part by regulating the cell surface expression of the ENaC complex (PubMed:17434346, PubMed:27941075, PubMed:17182731). Inhibits the activity of the ENaC channel containing subunits SCNN1A, SCNN1B and SCNN1G (PubMed:17182731). Inhibits the activity of the ENaC channel containing subunits SCNN1D, SCNN1B and SCNN1G, but not of the ENaC channel containing subunits SCNN1A, SCNN1B and SCNN1G (PubMed:17182731, PubMed:27941075). May regulate bicarbonate secretion and salvage in epithelial cells by regulating the transporter SLC4A7 (PubMed:12403779). Can inhibit the chloride channel activity of ANO1 (PubMed:22178883). Plays a role in the chloride and bicarbonate homeostasis during sperm epididymal maturation and capacitation (PubMed:19923167, PubMed:27714810). {ECO:0000269|PubMed:10792060, ECO:0000269|PubMed:11524016, ECO:0000269|PubMed:11707463, ECO:0000269|PubMed:12403779, ECO:0000269|PubMed:12519745, ECO:0000269|PubMed:12529365, ECO:0000269|PubMed:12588899, ECO:0000269|PubMed:14668433, ECO:0000269|PubMed:15010471, ECO:0000269|PubMed:16645176, ECO:0000269|PubMed:17036051, ECO:0000269|PubMed:1712898,

Target Details

ECO:0000269|PubMed:17182731, ECO:0000269|PubMed:19019741,
ECO:0000269|PubMed:19398555, ECO:0000269|PubMed:19621064,
ECO:0000269|PubMed:22178883, ECO:0000269|PubMed:25330774,
ECO:0000269|PubMed:26627831, ECO:0000269|PubMed:26823428,
ECO:0000269|PubMed:26846474, ECO:0000269|PubMed:27714810,
ECO:0000269|PubMed:27941075, ECO:0000269|PubMed:28087700,
ECO:0000269|PubMed:8910473, ECO:0000269|PubMed:9804160,
ECO:0000305|PubMed:19923167}.

Molecular Weight: 168.1 kDa

UniProt: [P13569](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months