CFTR

Cystic fibrosis transmembrane conductance regulator

CFTR (Cystic fibrosis transmembrane conductance regulator), mutations of which cause cystic fibrosis, belongs to the ATP-binding cassette (ABC) transporter family and works as a channel for small anions, such as chloride and bicarbonate. CFTR is composed of two homologous halves, each comprising a transmembrane (TMD) and a nucleotide binding domain (NBD). CFTR activity is regulated by phosphorylation of its cytosolic regulatory (R) domain, and ATP binding and hydrolysis at two NBDs.

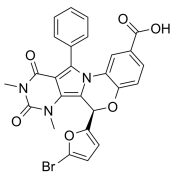
CFTR is expressed in many cell types throughout the body, but in the airways it is found mainly in secretory serous cells of the submucosal glands. Transitions between open and closed states of CFTR are regulated by ATP binding and hydrolysis on the cytosolic nucleotide binding domains, which are coupled with the transmembrane (TM) domains forming the pathway for anion permeation. CFTR function is normally tightly controlled as dysregulation can lead to life-threatening diseases such as secretory diarrhoea and cystic fibrosis.

CFTR Inhibitors, Agonists, Antagonists, Activators & Modulators

(R)-BPO-27

Cat. No.: HY-19778

(R)-BPO-27, the R enantiomer of BPO-27, is a potent, orally active and ATP-competitive **CFTR** inhibitor with an IC_{50} of 4 nM.



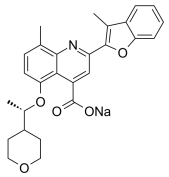
Purity: 99.86%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

(R)-Posenacaftor sodium

((R)-PTI-801 sodium)

Cat. No.: HY-109187B

(R)-Posenacaftor (R)-PTI-801) sodium is the R enantiomer of Posenacaftor. Posenacaftor is a **cystic fibrosis transmembrane regulator (CFTR) protein** modulator that corrects the folding and trafficking of CFTR protein.



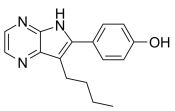
Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Aloisine A

(RP107)

Cat. No.: HY-112363

Aloisine A (RP107) is a a potent cyclin-dependent kinase (CDK) inhibitor with IC_{50}s of 0.15 μM, 0.12 μM, 0.4 μM, 0.16 μM for CDK1/cyclin B, CDK2/cyclin A, CDK2/cyclin E, CDK5/p35, respectively. Aloisine A ininhibits GSK-3α (IC_{50}=0.5 μM) and GSK-3β (IC_{50}=1.5 μM).



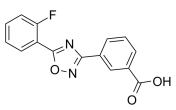
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Ataluren

(PTC124)

Cat. No.: HY-14832

Ataluren (PTC124) is an orally available **CFTR-G542X** nonsense allele inhibitor.



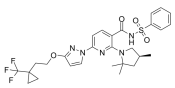
Purity: 99.71%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg, 200 mg

Bamocaftor

(VX-659)

Cat. No.: HY-126394

Bamocaftor (VX-659) is a cystic fibrosis transmembrane conductance regulator (**CFTR**) corrector designed to restore **F508del-CFTR** protein function. Bamocaftor can be used combine with Tezacaftor and Ivacaftor in cystic fibrosis research.

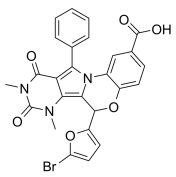


Purity: >98%
Clinical Data: No Development Reported
Size: 50 mg, 100 mg, 200 mg

BPO-27 racemate

Cat. No.: HY-19778A

BPO-27 racemate is a potent **CFTR** inhibitor with an IC_{50} of 8 nM.



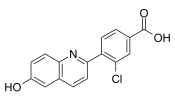
Purity: 98.37%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

Cavosonstat

(N91115)

Cat. No.: HY-109027

Cavosonstat (N91115) is an orally active **S-nitrosoglutathione reductase (GSNOR)** inhibitor. Cavosonstat is a CFTR stabilizer, and can be used for cystic fibrosis research.

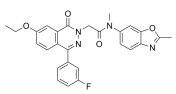


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

CFTR corrector 2

Cat. No.: HY-125381

CFTR corrector 2 is a **cystic fibrosis transmembrane conductance corrector (CFTR)**, extracted from patent US20140274933.

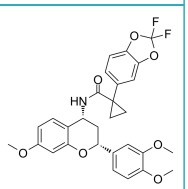


Purity: 98.29%
Clinical Data: Phase 2
Size: 5 mg, 10 mg, 50 mg, 100 mg

CFTR corrector 4

Cat. No.: HY-135279

CFTR corrector 4 (Compound 13), an active (R,R)-form enantiomer, is a highly potent and orally active **cystic fibrosis transmembrane conductance regulator (CFTR)** corrector.

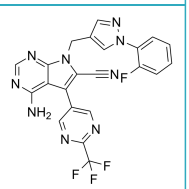


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

CFTR corrector 6

Cat. No.: HY-136939

CFTR corrector 6 is a potent potentiator of **Cystic Fibrosis Transmembrane conductance Regulator (CFTR)**. CFTR corrector 6 has the potential for cystic fibrosis (CF) and other CFTR associated disorders research.



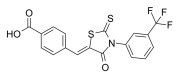
Purity: 99.87%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com

CFTR(inh)-172

Cat. No.: HY-16671

CFTR(inh)-172 is a potent and selective blocker of the **CFTR** chloride channel; reversibly inhibits CFTR short-circuit current in less than 2 minutes with a K_i of 300 nM.

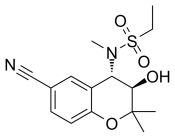


Purity: 98.70%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Chromanol 293B

Cat. No.: HY-108575

Chromanol 293B is a selective blocker of the **slow delayed rectifier K^+ current (IKs)** with IC_{50} of 1-10 μM and a weak inhibitor of **KATP channel**. Chromanol 293B also blocks the **CFTR chloride current** with an IC_{50} of 19 μM.

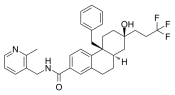


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

CP-628006

Cat. No.: HY-145126

CP-628006, a small molecule **CFTR** potentiator, restores ATP-dependent channel gating to the cystic fibrosis mutant G551D-CFTR.



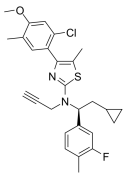
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Crinecerfont

(SSR-125543)

Cat. No.: HY-106203

Crinecerfont (SSR-125543) hydrochloride is a potent, orally active, non-peptide **CRF1 receptor** antagonist. Crinecerfont can be used for Classic congenital adrenal hyperplasia (CAH) research.



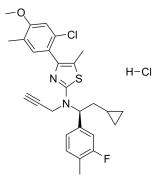
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Crinecerfont hydrochloride

(SSR-125543 hydrochloride; SSR-125543A)

Cat. No.: HY-106203A

Crinecerfont (SSR-125543) hydrochloride is a potent, orally active, non-peptide **CRF1 receptor** antagonist. Crinecerfont can be used for Classic congenital adrenal hyperplasia (CAH) research.



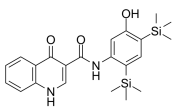
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Dirocaftor

(PTI-808)

Cat. No.: HY-137437

Dirocaftor (PTI-808) is a **CFTR** potentiator that enhances the function of **CFTR** protein by opening chloride channels. Dirocaftor can be used for cystic fibrosis (CF) research.



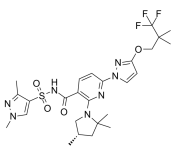
Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Elexacaftor

(VX-445)

Cat. No.: HY-111772

Elexacaftor (VX-445, Compound 1) is a modulator of **cystic fibrosis transmembrane conductance regulator (CFTR)**. Elexacaftor (VX-445, Compound 1) facilitates the processing and trafficking of CFTR to increase the amount of CFTR at the cell surface.



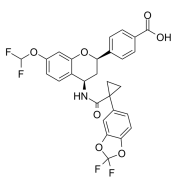
Purity: 99.50%
Clinical Data: Launched
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg

Galicaftor

(ABBV-2222; GLPG-2222)

Cat. No.: HY-111111

Galicaftor (ABBV-2222; GLPG-2222) is a potent and orally active **cystic fibrosis transmembrane conductance regulator (CFTR)** corrector. Galicaftor can be used for cystic fibrosis research.



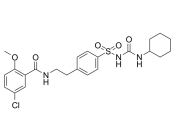
Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

Glibenclamide

(Glyburide)

Cat. No.: HY-15206

Glibenclamide (Glyburide) is an orally active ATP-sensitive K^+ channel (K_{ATP}) inhibitor and can be used for the research of diabetes and obesity. Glibenclamide inhibits **P-glycoprotein**.

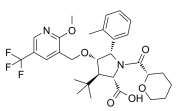


Purity: 99.79%
Clinical Data: Launched
Size: 10 mM × 1 mL, 500 mg, 1 g, 5 g

GLPG-3221

Cat. No.: HY-133013

GLPG-3221 is a potent, orally active corrector of **CFTR** (cystic fibrosis transmembrane conductance regulator), with an EC_{50} of 105 nM. GLPG-3221 can be uesd for the treatment of cystic fibrosis.



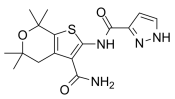
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

GLPG1837

(ABBV-974)

Cat. No.: HY-111099

GLPG1837 is a potent and reversible **CFTR** potentiator, with EC_{50}s of 3 nM and 339 nM for F508del and G551D CFTR, respectively.

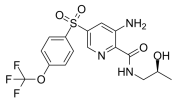


Purity: 99.03%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

GLPG2451

Cat. No.: HY-119936

GLPG2451 is a **cystic fibrosis transmembrane conductance regulator (CFTR)** potentiator, which effectively potentiates low temperature rescued F508del CFTR with an EC_{50} of 11.1 nM.

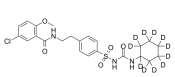


Purity: 99.62%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Glyburide-d11

Cat. No.: HY-15206S

Glyburide-d11 is the deuterium labeled Glibenclamide. Glibenclamide (Glyburide) is an orally active ATP-sensitive K^+ channel (K_{ATP}) inhibitor and can be used for the research of diabetes and obesity. Glibenclamide inhibits **P-glycoprotein**.



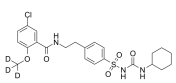
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 10 mg

Glyburide-d3

(Glyburide-d3)

Cat. No.: HY-15206S1

Glyburide-d3 (Glyburide-d3) is the deuterium labeled Glibenclamide. Glibenclamide (Glyburide) is an orally active ATP-sensitive K^+ channel (K_{ATP}) inhibitor and can be used for the research of diabetes and obesity. Glibenclamide inhibits **P-glycoprotein**.

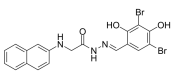


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

GlyH-101

Cat. No.: HY-18336

GlyH-101 is a cell-permeable glycinyl hydrazone compound that blocks CFTR with Ki of 1.4 uM. IC50 value: 1.4 uM (Ki, at +60 mV) Target: CFTR in vitro: GlyH-101 reversibly inhibited CFTR Cl- conductance in <1 min.



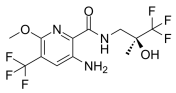
Purity: 98.24%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

Icenticaftor

(QBW251)

Cat. No.: HY-109177

Icenticaftor (QBW251) is an orally active **CFTR** channel potentiator, with EC_{50}s of 79 nM and 497 nM for **F508del** and **G551D CFTR**, respectively. Icenticaftor can be used for chronic obstructive pulmonary disease (COPD) and cystic fibrosis research.

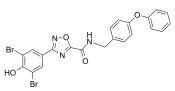


Purity: 99.87%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

IOWH-032

Cat. No.: HY-18337

IOWH-032 is a novel and potent CFTR inhibitor (IC50=1.01 uM) in T84 and CHO-CFTR cell based assays. IC50 value: 1.01 uM (CHO-CFTR FLIPR) Target: CFTR Profiling of iOWH032 showed it to be a CFTR inhibitor in T84 and CHO-CFTR cell based assays.



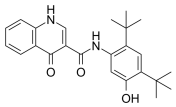
Purity: 99.63%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg, 500 mg

Ivacaftor

(VX-770)

Cat. No.: HY-13017

Ivacaftor (VX-770) is a potent and orally bioavailable **CFTR** potentiator, targeting G551D-CFTR and F508del-CFTR with EC_{50}s of 100 nM and 25 nM, respectively.



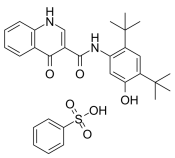
Purity: 99.90%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg

Ivacaftor benzenesulfonate

(VX-770 benzenesulfonate)

Cat. No.: HY-13017A

Ivacaftor benzenesulfonate is an orally bioavailable **CFTR** potentiator, used for cystic fibrosis treatment.



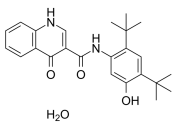
Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Ivacaftor hydrate

(VX-770 hydrate)

Cat. No.: HY-13017B

Ivacaftor hydrate (VX-770 hydrate) is an orally bioavailable **CFTR** potentiator, used for cystic fibrosis treatment.



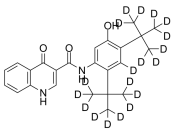
Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Ivacaftor-d19

(VX-770-d19)

Cat. No.: HY-13017S1

Ivacaftor-d19 (VX-770-d19) is the deuterium labeled Ivacaftor. Ivacaftor (VX-770) is a potent and orally bioavailable **CFTR** potentiator, targeting G551D-CFTR and F508del-CFTR with EC_{50}s of 100 nM and 25 nM, respectively.



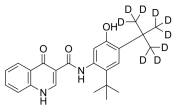
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Ivacaftor-d9

(VX-770-d9)

Cat. No.: HY-13017S

Ivacaftor-D9 (CTP-656) is a potent **CFTR modulator** and exhibits an EC_{50} value of 255 nM for CFTR potentiation in G551D/F508del HBE Cells. Ivacaftor-D9 acts as an orally active and improved deuterated Ivacaftor analog for cystic fibrosis research.



Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

K41498 TFA

Cat. No.: HY-P1106A

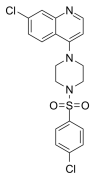
K41498 TFA is a potent and highly selective **CRF2 receptor** antagonist with K_i values of 0.66 nM, 0.62 nM and 425 nM for human $CRF_{2\alpha}$, $CRF_{2\beta}$ and CRF_1 receptors respectively.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

KM11060

Cat. No.: HY-19970

KM11060 is a corrector of the F508 deletion (F508del)-cystic fibrosis transmembrane conductance regulator (CFTR) trafficking defect. KM11060 can be used for the research of F508del-CFTR processing defect and development of cystic fibrosis therapeutics.

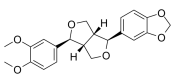


Purity: 99.59%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 25 mg, 50 mg, 100 mg

Kobusin

Cat. No.: HY-N5101

Kobusin is a bisepoxylignan isolated from the Pnonobio biondii Pamp. Kobusin is an activator of CFTR and CaCCgie chloride channels and a inhibitor of **ANO1/CaCC (calcium-activated chloride channel) channel**.



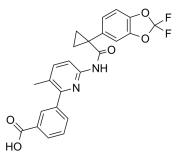
Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

Lumacaftor

(VX-809; VRT 826809)

Cat. No.: HY-13262

Lumacaftor (VX-809; VRT 826809) is a **CFTR** modulator that corrects the folding and trafficking of CFTR protein.



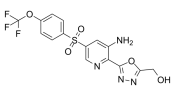
Purity: 99.19%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Navocaftor

(GLPG 3067; ABBV-3067)

Cat. No.: HY-109152

Navocaftor (GLPG 3067), as a cystic fibrosis transmembrane regulator (**CFTR**), is a protein modulator (US 20200377491 Al, example 1).



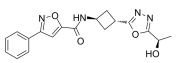
Purity: 99.05%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Nesolicaftor

(PTI-428)

Cat. No.: HY-111680

Nesolicaftor (PTI-428) is a specific cystic fibrosis transmembrane conductance regulator (**CFTR**) amplifier.

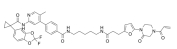


Purity: 99.65%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

NJH-2-057

Cat. No.: HY-115878

NJH-2-057 is an EN523 OTUB1 recruiter linked to lumacaftor, a drug used to treat cystic fibrosis that binds **ΔF508-CFTR**.



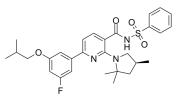
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Olacaftor

(VX-440)

Cat. No.: HY-112267

Olacaftor (VX-440) is a cystic fibrosis transmembrane conductance regulator (**CFTR**) modulator extracted from patent US9782408.

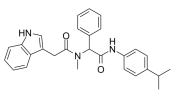


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

PG01

Cat. No.: HY-103369

PG01 is a potent **CFTR** Cl^- channel potentiator. PG01 can correct gating defects of **CFTR** mutants, is effective on b>E193K, **G970R** and **G551D** (CFTR mutants) with K_d values of 0.22 μM, 0.45 μM and 1.94 μM, respectively. PG01 is also effective on **ΔF508** (K_a of 0.3 μM).



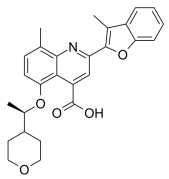
Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg

Posenacaftor

(PTI-801)

Cat. No.: HY-109187

Posenacaftor (PTI-801) is a **cystic fibrosis transmembrane regulator (CFTR) protein** modulator that corrects the folding and trafficking of CFTR protein. Posenacaftor is used for the research of cystic fibrosis (CF).



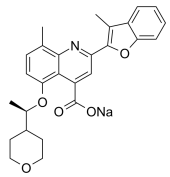
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Posenacaftor sodium

(PTI-801 sodium)

Cat. No.: HY-109187A

Posenacaftor (PTI-801) sodium is a **cystic fibrosis transmembrane regulator (CFTR) protein** modulator that corrects the folding and trafficking of CFTR protein. Posenacaftor sodium is used for the research of cystic fibrosis (CF).



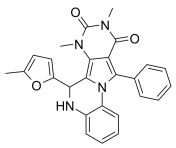
Purity: 99.65%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

PPQ-102

(CFTR Inhibitor)

Cat. No.: HY-14179

PPQ-102 is a potent CFTR inhibitor which can completely inhibited CFTR chloride current with IC50 of ~90 nM. IC50 value: 90 nM Target: CFTR in vitro: The most potent compound, 7,9-dimethyl-11-p henyl-6-(5-methylfuran-2-yl)-5,6-dihydro-pyrimido[.



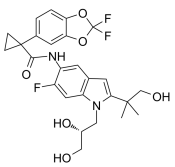
Purity: 99.82%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Tezacaftor

(VX-661)

Cat. No.: HY-15448

Tezacaftor (VX-661) is a second **F508del CFTR** corrector and help CFTR protein reach the cell surface.

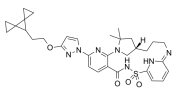


Purity: 99.94%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

Vanzacaftor

Cat. No.: HY-145603

Vanzacaftor is a modulator of **cystic fibrosis transmembrane conductance regulator (CFTR)** for treating cystic fibrosis.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg