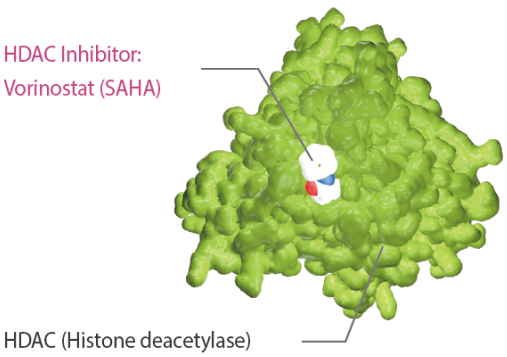
CFTR

Cystic fibrosis transmembrane conductance regulator



CFTR (Cystic fibrosis transmembrane conductance regulator) is a membrane protein in vertebrates that is encoded by the CFTR gene. CFTR is an ABC transporter-class ion channel that conducts chloride and thiocyanate ions across epithelial cell membranes. Mutations of the CFTR gene affecting chloride ion channel function lead to dysregulation of epithelial fluid transport in the lung, pancreas and other organs, resulting in cystic fibrosis. Complications include thickened mucus in the lungs with frequent respiratory infections, and pancreatic insufficiency giving rise to malnutrition and diabetes. These conditions lead to chronic disability and reduced life expectancy. CFTR functions as a cAMP-activated ATP-gated anion channel, increasing the conductance for certain anions to flow down their electrochemical gradient. ATP-driven conformational changes in CFTR open and close a gate to allow transmembrane flow of anions down their electrochemical gradient. CFTR is an ion channel that evolved as a 'broken' ABC transporter that leaks when in open conformation.

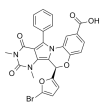
CFTR Inhibitors & Modulators

(R)-BPO-27

Cat. No.: HY-19778

Bioactivity: (R)-BPO-27 is a potent **CFTR** inhibitor with an **IC_{50}** of 4 nM.

Purity: 99.56%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
1 mg, 5 mg, 10 mg, 50 mg, 100 mg



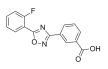
Ataluren

(PTC124)

Cat. No.: HY-14832

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

Purity: 99.88%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO,
10 mg, 50 mg, 100 mg, 200 mg

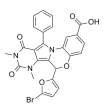


BPO-27 racemate

Cat. No.: HY-19778A

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

Purity: 98.67%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
1 mg, 5 mg, 10 mg, 50 mg, 100 mg

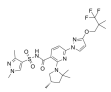


CFTR corrector 1

Cat. No.: HY-111772

Bioactivity: CFTR corrector 1 (compound 1) is a modulator of **cystic fibrosis transmembrane conductance regulator (CFTR)**. CFTR corrector 1 (compound 1) facilitates the processing and trafficking of CFTR to increase the amount of CFTR at the cell surface [1].

Purity: >98%
Clinical Data: No Development Reported
Size:

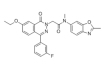


CFTR corrector 2

Cat. No.: HY-125381

Bioactivity: CFTR corrector 2 is a **cystic fibrosis transmembrane conductance corrector (CFTR)**, extracted from patent US20140274933 [1].

Purity: >98%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg

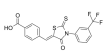


CFTR(inh)-172

Cat. No.: HY-16671

Bioactivity: 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: 98.82%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg



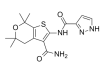
GLPG1837

(ABBV-974)

Cat. No.: HY-111099

Bioactivity: 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: 99.15%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
1 mg, 5 mg, 10 mg, 50 mg, 100 mg

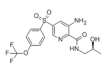


GLPG2451

Cat. No.: HY-119936

Bioactivity: 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 [1].

Purity: >98%
Clinical Data: No Development Reported
Size: 100 mg, 500 mg, 250 mg

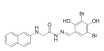


GlyH-101

Cat. No.: HY-18336

Bioactivity: GlyH-101 is a cell-permeable glycinyl hydrazone compound that blocks CFTR with Ki of 1.4 uM.

Purity: 99.35%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg

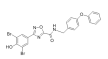


IOWH-032

Cat. No.: HY-18337

Bioactivity: 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) [1] Target: CFTR Profiling of iOWH032 showed it to be a CFTR inhibitor in T84 and CHO-CFTR cell based assays. It also demonstrated statistical significant...

Purity: 99.66%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO,
10 mg, 50 mg

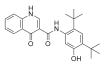


Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com

Ivacaftor
(VX-770) Cat. No.: HY-13017

Bioactivity: Ivacaftor 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.

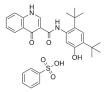
Purity: 99.93%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



Ivacaftor benzenesulfonate
(VX-770 benzenesulfonate) Cat. No.: HY-13017A

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

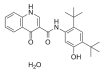
Purity: >98%
Clinical Data: Launched
Size: 5 mg, 10 mg, 50 mg, 100 mg



Ivacaftor hydrate
(VX-770 hydrate) Cat. No.: HY-13017B

Bioactivity: Ivacaftor hydrate is an orally bioavailable **CFTR** potentiator, used for cystic fibrosis treatment.

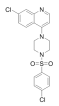
Purity: >98%
Clinical Data: Launched
Size: 5 mg, 10 mg, 50 mg, 100 mg



KM11060
Cat. No.: HY-19970

Bioactivity: KM11060 is a novel corrector of the F508del-CFTR trafficking defect.

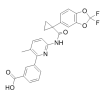
Purity: 99.80%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg



Lumacaftor
(VX-809; VRT 826809) Cat. No.: HY-13262

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

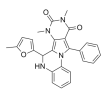
Purity: 99.12%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



PPQ-102
(CFTR Inhibitor) Cat. No.: HY-14179

Bioactivity: PPQ-102 is a potent CFTR inhibitor which can completely inhibited CFTR chloride current with IC 50approximately 90 nM.

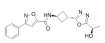
Purity: 98.19%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



PTI-428
Cat. No.: HY-111680

Bioactivity: PTI-428 is a specific cystic fibrosis transmembrane conductance regulator (**CFTR**) amplifier [1].

Purity: 99.77%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



Tezacaftor
(VX-661) Cat. No.: HY-15448

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

Purity: 99.92%
Clinical Data: Phase 3
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg