

Product Name : Ivacaftor benzenesulfonate

Synonyms : VX-770 benzenesulfonate; VX 770 benzenesulfonate

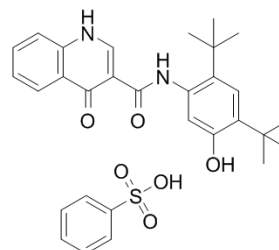
Cat No. : M10470

CAS Number : 1134822-09-5

Molecular Formula : C₃₀H₃₄N₂O₆S

Formula Weight : 550.67

Chemical Name : 3-Quinolinecarboxamide, N-[2,4-bis(1,1-dimethylethyl)-5-hydroxyphenyl]-1,4-dihydro-4-oxo-, benzenesulfonate (1:1)



Description : Ivacaftor (VX-770, VX770) is a potent, orally bioavailable CFTR potentiator, increases G551D- and F508del CFTR-mediated Cl⁻ secretion with EC₅₀ of 100 nM; increases CFTR channel open probability (Po) in both the F508del processing mutation and the G551D gating mutation in recombinant cells, increases the Po of G551D CFTR by 6-fold, the Po of F508del- and wild-type CFTR by 5-fold and 2-fold, respectively; also potentiates CFTR-mediated Cl⁻ secretion in primary cultures of G551D/F508del HBE and F508del HBE; demonstrates potential for treatment of cystic fibrosis with certain mutations in CFTR gene (primarily the G551D mutation). Fibrosis Approved

Pathway : Apoptosis

Target : CFTR

Receptor : CFTR

Solubility : 10 mM in DMSO

SMILES : CC(C)(C)C1=CC(=C(C=C1NC(=O)C2=CNC3=CC=CC=C3C2=O)O)C(C)(C)C.C1=CC=C(C=C1)S(=O)(=O)O

Storage : (-20°C)

Stability : ≥ 2 years

Reference :

1. Van Goor F, et al. Proc Natl Acad Sci U S A. 2009 Nov 3;106(44):18825-30. | 2. Accurso FJ, et al. N Engl J Med. 2010 Nov 18;363(21):1991-2003. | 3. Yu W, et al. J Biol Chem. 2011 Jul 15;286(28):24714-25. | 4. Hadida S, et al. J Med Chem. 2014 Dec 11;57(23):9776-95.