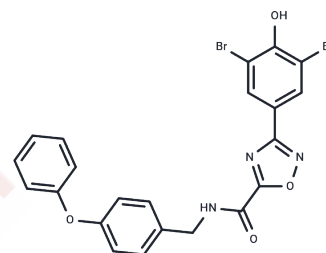


IOWH-032

Chemical Properties

CAS No. : 1191252-49-9
 Formula: C₂₂H₁₅Br₂N₃O₄
 Molecular Weight: 545.18
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	IOWH-032 (IOWH032), a synthetic CFTR inhibitor, has been investigated for the treatment of cholera, diarrhea, and secretory diarrhea.
Targets(IC50)	CFTR, Autophagy, SARS-CoV
In vitro	In a closed-system mouse model, IOWH032 effectively inhibits the secretions induced by cholera toxin. Moreover, in a rat model with the cecum removed, IOWH032 (5 mg/kg) suppresses the excretion of waste.
In vivo	In T84-CFTR cells (IC ₅₀ =6.87 μM), IOWH032 effectively inhibits CFTR activity.
Kinase Assay	Enzyme assays are performed using a homogeneous time-resolved fluorescence assay with recombinant epitope tagged kinase domains (JAK1, 837-1142; JAK2, 828-1132; JAK3, 718-1124; Tyk2, 873-1187) or full-length enzyme (cMET and Chk2) and peptide substrate. Each enzyme reaction is performed with or without test compound (11-point dilution), JAK, cMET, or Chk2 enzyme, 500 nM (100 nM for Chk2) peptide, ATP (at the K _m specific for each kinase or 1 mM), and 2.0% DMSO in assay buffer. The calculated IC ₅₀ value is the compound concentration required for inhibition of 50% of the fluorescent signal. Additional kinase assays are performed at Cerep using standard conditions at 200 nM. Enzymes tested included: Abl, Akt1, AurA, AurB, CDC2, CDK2, CDK4, CHK2, c-kit, EGFR, EphB4, ERK1, ERK2, FLT-1, HER2, IGF1R, IKKα, IKKβ, JNK1, Lck, MEK1, p38α, p70S6K, PKA, PKCα, Src, and ZAP70[1].

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 93 mg/mL (170.59 mM), Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (6.05 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8343 mL	9.1713 mL	18.3426 mL
5 mM	0.3669 mL	1.8343 mL	3.6685 mL
10 mM	0.1834 mL	0.9171 mL	1.8343 mL
50 mM	0.0367 mL	0.1834 mL	0.3669 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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