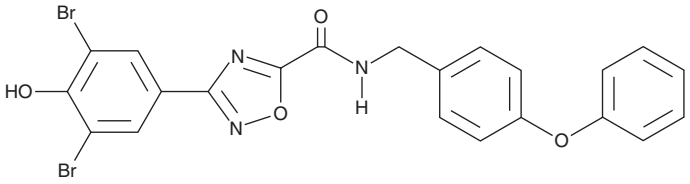
PRODUCT INFORMATION

IOWH-032

Item No. 30273

CAS Registry No.:	1191252-49-9
Formal Name:	3-(3,5-dibromo-4-hydroxyphenyl)-N-[(4-phenoxyphenyl)methyl]-1,2,4-oxadiazole-5-carboxamide
MF:	$C_{22}H_{15}Br_2N_3O_4$
FW:	545.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 218 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

IOWH-032 is supplied as a crystalline solid. A stock solution may be made by dissolving the IOWH-032 in the solvent of choice, which should be purged with an inert gas. IOWH-032 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of IOWH-032 in these solvents is approximately 30 mg/ml.

IOWH-032 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IOWH-032 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. IOWH-032 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

IOWH-032 is a modulator of the cystic fibrosis transmembrane conductance regulator (CFTR).[1,2] It inhibits CFTR in T84 human colon cells (IC_{50} = 8.51 µM).[1] It has rapid inhibitory and slow potentiating effects on human CFTR with apparent K_d values of 6.1 and 0.64 nM, respectively.[2] IOWH-032 (20 nM) also potentiates currents through CFTR bearing the F508 deletion mutation (ΔF508-CFTR) expressed in *X. laevis* oocytes. It inhibits, but does not potentiate, mouse CFTR with an apparent K_d value of 42.9 µM.

References

1. Doyle, K.J., Jones, G.P., Russell, M.G.N., *et al.* Compounds, compositions and methods compromising heteroaromatic derivates. *Institute for OneWorld Health*. **US2009/0318429AI** (2009).
2. Cui, G., Khazanov, N., Stauffer, B.B., *et al.* Potentiators exert distinct effects on human, murine, and *Xenopus* CFTR. *Am. J. Physiol. Lung. Cell. Mol. Physiol.* **311(2)**, L192-207 (2016).

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