
IOX4

产品编号: D50941

CAS: 1154097-71-8

分子式: C₁₅H₁₆N₆O₃

纯度: ≥98%

InChi: InChi=1S/C₁₅H₁₆N₆O₃/c1-15(2,3)24-14(23)10-4-5-12(16-8-10)21-13(22)11(9-18-21)20-7-6-17-19-20/h4-9,18H,1-3H3

InChi Key: HWQQDVNGHZIALS-UHFFFAOYSA-N

Smiles: CC(C)(C)OC(=O)C1=CN=C(C=C1)N1NC=C(C1=O)N1C=CN=N1

外观: 固体粉末

作用通路: HIF/HIF Prolyl-Hydroxylase

溶解性: DMSO up to 100 mM

保存条件: Store in dry, dark place for one year.

产品介绍: IOX4 is a potent and selective PHD2 inhibitor with IC₅₀ ~1.6 nM. It inhibits PHD2 via binding to the 2OG binding site, displays >1, 000-fold selectivity for PHD2 over other 2OG-dependent dioxygenases, including JMJD isoforms, FBXL11, JARID1C, BBOX1, FIH, and FTO. IOX4 is active in vivo, inhibiting prolyl hydroxylation and increasing HIF-1α levels in cells (IC₅₀ ~5.6-11.7 μM) and inducing HIF-1α and HIF-2α expression in mice. The induction of HIF expression in mice occurs in the brain as well as in the liver, kidney, and heart, indicating that IOX4 penetrates the blood-brain barrier. IOX4 could be a useful tool compound for studies aimed at validating the upregulation of HIF for treatment of cerebral diseases including stroke.