Product Information

IOX1
Item No. 11572

CAS Registry No.: 5852-78-8
Formal Name: 8-hydroxy-5-quinolinecarboxylic acid
MF: C₁₀H₇NO₃
FW: 189.2
Purity: ≥97%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λmax = 241, 320 nm

Laboratory Procedures

For long term storage, we suggest that IOX1 be stored as supplied at -20°C. It should be stable for at least two years. IOX1 is supplied as a crystalline solid. A stock solution may be made by dissolving the IOX1 in the solvent of choice. IOX1 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of IOX1 in DMSO is approximately 20 mg/ml and approximately 10 mg/ml in DMF.

IOX1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IOX1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. IOX1 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO/PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

2-oxoglutarate (2OG) and other Fe(II)-dependent oxygenases are an important family of enzymes with roles in collagen biosynthesis, lipid metabolism, nucleic acid repair and modification, histone demethylation, and hypoxic sensing.1-3 Impaired 2OG oxygenase activity is linked to the cellular hypoxic response and various diseases including cancer.4 Iron-chelators, Co(II) ions, and 2OG analogues such as pyridine-2,4-dicarboxylate and N-oxalylglycine have been used as non-selective inhibitors of 2OG oxygenases.3-5 However, they require administration as pro-drug diester derivatives. IOX1 is a broad-spectrum inhibitor of 2OG oxygenases that does not require application in a pro-drug formulation. IOX1 inhibits JMJD2A, JMJD2E and the 2OG oxygenases PHF8, PHD2, and FIH with IC₅₀ values of 1.7, 2.4, 13.3, 14.3, and 20.5 μM, respectively.4 IOX1 inhibits H3K9me3 demethylation by JMJD2A in HeLa cells with an IC₅₀ value of 87 μM.4

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/11572

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.