

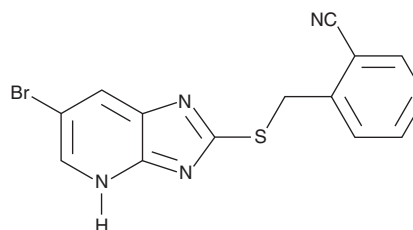
PRODUCT INFORMATION



STK393606

Item No. 14049

CAS Registry No.: 355827-05-3
Formal Name: 2-[[[(6-bromo-3H-imidazo[4,5-b]pyridin-2-yl)thio]methyl]-benzonitrile
MF: C₁₄H₉BrN₄S
FW: 345.2
Purity: ≥98%
UV/Vis.: λ_{max}: 311 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

STK393606 is supplied as a crystalline solid. A stock solution may be made by dissolving the STK393606 in the solvent of choice, which should be purged with an inert gas. STK393606 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of STK393606 in these solvents is approximately 12 and 14 mg/ml, respectively.

STK393606 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, STK393606 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. STK393606 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

15-hydroxy prostaglandin dehydrogenase (15-hydroxy PGDH) is a key enzyme involved in the inactivation of PGs and related eicosanoids.¹ It functions by catalyzing the oxidation of primary PGs to their 15-keto metabolites. Two types of 15-hydroxy PGDH have been identified: type-I is NAD⁺-dependent primarily using eicosanoids as substrates, while type-II uses either NAD⁺ or NADP⁺ as cofactors and bears broader substrate specificity.¹ STK393606 is a competitive inhibitor of NAD⁺-dependent type-I 15-hydroxy PGDH with an IC₅₀ value of 26.4 nM and a K_i value of 5 nM.² It demonstrates selectivity for 15-hydroxy PGDH when profiled across a panel of related dehydrogenase or reductase enzymes.²

References

1. Tai, H.-H., Ensor, C.M., Tong, M., *et al.* Prostaglandin catabolizing enzymes. *Prostaglandins Other Lipid Mediat.* **68-69**, 483-493 (2002).
2. Niesen, F.H., Schultz, L., Jadhav, A., *et al.* High-affinity inhibitors of human NAD⁺-dependent 15-hydroxyprostaglandin dehydrogenase: Mechanisms of inhibition and structure-activity relationships. *PLoS One* **5(11)**, 1-12 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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