

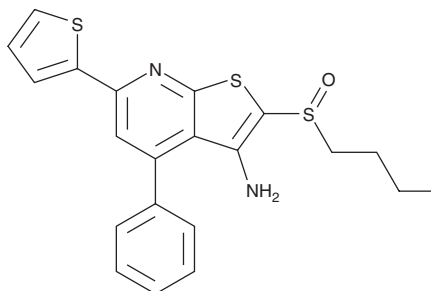
PRODUCT INFORMATION



SW033291

Item No. 18040

CAS Registry No.: 459147-39-8
Formal Name: 2-(butylsulfinyl)-4-phenyl-6-(2-thienyl)-thieno[2,3-b]pyridine-3-amine
MF: C₂₁H₂₀N₂OS₃
FW: 412.6
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 260, 315, 345 nm



Laboratory Procedures

For long term storage, we suggest that SW033291 be stored as supplied at -20°C. It should be stable for at least two years.

SW033291 is supplied as a crystalline solid. A stock solution may be made by dissolving the SW033291 in the solvent of choice. SW033291 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of SW033291 in ethanol is approximately 3 mg/ml and approximately 30 mg/ml in DMSO and DMF.

SW033291 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

The enzyme 15-hydroxy prostaglandin dehydrogenase (15-PGDH) initiates the catabolism of PGs and related eicosanoids.^{1,2} SW033291 is a potent inhibitor of 15-PGDH (K_i = ~0.1 nM) that has activity *in vivo*.³ It rapidly increases the levels of PGE₂ in bone marrow and other tissues in mice after intraperitoneal injection.³ SW033291 accelerates hematopoietic recovery in mice receiving bone marrow transplant and promotes tissue regeneration in mouse models of colon and liver injury.³

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. Buczynski, M.W., Dumlao, D.S., and Dennis, E.A. Thematic Review Series: Proteomics. An integrated omics analysis of eicosanoid biology. *J. Lipid Res.* **50**, 1015-1038 (2009).
3. Zhang, Y., Desai, A., Yang, S.Y., *et al.* Inhibition of the prostaglandin-degrading enzyme 15-PGDH potentiates tissue regeneration. *Science* **348(6240)**, aaa2340-1-aaa2340-8 (2015).

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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