

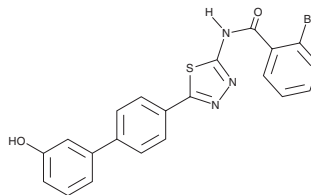
PRODUCT INFORMATION



Prostaglandin E₂ Inhibitor 3

Item No. 38316

CAS Registry No.: 3054217-03-4
Formal Name: 2-bromo-N-[5-(3'-hydroxy[1,1'-biphenyl]-4-yl)-1,3,4-thiadiazol-2-yl]-benzamide
Synonym: PGE₂ Inhibitor 3
MF: C₂₁H₁₄BrN₃O₂S
FW: 452.3
Purity: ≥95%
Supplied as: A 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

Prostaglandin E₂ (PGE₂) inhibitor 3 is supplied as a solid. A stock solution may be made by dissolving the PGE₂ inhibitor 3 in the solvent of choice, which should be purged with an inert gas. PGE₂ inhibitor 3 is soluble in ethanol and DMSO.

Description

PGE₂ inhibitor 3 is an inhibitor of microsomal prostaglandin E synthase-1 (mPGES-1; IC₅₀ = 0.2 μM).¹ It is selective for mPGES-1 over COX-1, COX-2, 5-lipoxygenase (5-LO), and soluble epoxide hydrolase (sEH) in cell-free assays at 10 μM. PGE₂ inhibitor 3 inhibits IL-1β-induced production of PGE₂ (Item No. 14010) in A549 cells and LPS-induced IL-6 and PGE₂ production in J774A.1 macrophages when used at concentrations of 10 and 1 μM, respectively. It also inhibits the formation of 5-LO products, including leukotriene B₄ (LTB₄; Item No. 20110) and 5-H(p)ETE, induced by the calcium ionophore A23187 (Item Nos. 11016 | 22030) alone or with arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) and A23187 (IC₅₀s = 4.9 and 5.2 μM, respectively). *In vivo*, PGE₂ inhibitor 3 (10 mg/kg) prevents leukocyte infiltration into the peritoneal fluid in a mouse model of zymosan-induced peritonitis.

Reference

1. Potenza, M., Giodano, A., Chini, M.G., *et al.* Identification of 2-aminoacyl-1,3,4-thiadiazoles as prostaglandin E₂ and leukotriene biosynthesis inhibitors. *ACS Med. Chem. Lett.* **14**(1), 26-34 (2023).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/22/2025

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM