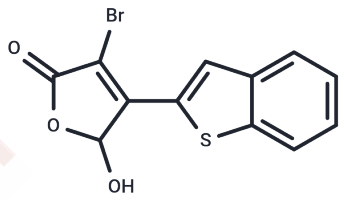
Data Sheet (Cat.No.T23861)

TargetMol

CAY10526

Chemical Properties



CAS No. : 938069-71-7

Formula: C12H7BrO3S

Molecular Weight: 311.15

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	CAY10526 (BTH) is a selective mPGES-1 inhibitor that acts as an inhibitor of the NF-κB signaling pathway.
Targets(IC50)	PGE Synthase,Prostaglandin Receptor
In vitro	CAY10526 dose-dependently inhibits PGE2 production in lipopolysaccharide-stimulated RAW 264.7 cells with an IC50 value of 1.8 μM without any effect on COX-2 expression[1].

Solubility Information

Solubility	DMSO: 16 mg/mL (51.42 mM),Sonication is recommended. DMF: 16 mg/mL (51.42 mM),Sonication is recommended. Ethanol: 1 mg/mL (3.21 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 1.5 mg/mL (4.82 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2139 mL	16.0694 mL	32.1388 mL
5 mM	0.6428 mL	3.2139 mL	6.4278 mL
10 mM	0.3214 mL	1.6069 mL	3.2139 mL
50 mM	0.0643 mL	0.3214 mL	0.6428 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Guerrero, M.D., Aquino, M., Bruno, I., et al. Synthesis and pharmacological evaluation of a selected library of new potential anti-inflammatory agents bearing the γ-hydroxybutenolide scaffold: a new class of inhibitors of prostanoid production through the selective modulation of microsomal prostaglandin E synthase-1 expression. Journal of Medicinal Chemistry 50, 2176-2184 (2007).

Kim SH, Hashimoto Y, Cho SN, Roszik J, Milton DR, Dal F, Kim SF, Menter DG, Yang P, Ekmekcioglu S, Grimm EA. Microsomal PGE2 synthase-1 regulates melanoma cell survival and associates with melanoma disease progression. Pigment Cell Melanoma Res. 2016 May;29(3):297-308.

Jongthawin J, Chusorn P, Techasen A, Loilome W, Boonmars T, Thanan R, Puapairoj A, Khuntikeo N, Tassaneeyakul W, Yongvanit P, Namwat N. PGE2 signaling and its biosynthesis-related enzymes in cholangiocarcinoma progression. Tumour Biol. 2014 Aug;35(8):8051-64.

Xu LW, Qian M, Jia RP, Xu Z, Wu JP, Li WC, Huang WB, Chen XG. Expression and significance of microsomal prostaglandin synthase-1 (mPGES-1) and Beclin-1 in the development of prostate cancer. Asian Pac J Cancer Prev. 2012;13(4):1639-44.