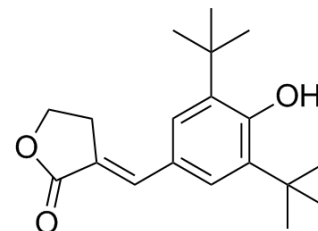


PGS-IN-1

Cat. No.:	HY-101587		
CAS No.:	102271-49-8		
Molecular Formula:	C ₁₉ H ₂₆ O ₃		
Molecular Weight:	302.41		
Target:	PGE synthase; Lipoxygenase		
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	PGS-IN-1 is a potent inhibitor of prostaglandin synthetase (PGS) with an IC ₅₀ of 0.28 μM; also inhibits 5-lipoxygenase with an IC ₅₀ of 1.05 μM.
IC₅₀ & Target	5-Lipoxygenase 1.05 μM (IC ₅₀)
In Vitro	The synthesized α-benzylidene-γ-butyrolactones are pure isomers (either cis or trans). PGS-IN-1 is the trans isomer. PGS-IN-1 exhibits potent antiinflammatory and PGS inhibitory activity (IC ₅₀ =0.28 μM). PGS-IN-1 also shows potent inhibitory activity against 5-lipoxygenase (IC ₅₀ =1.05 μM) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Kinase Assay ^[1]	PGS-IN-1 is dissolved in ethanol and the final concentration of ethanol is kept at 2% in each assay. The reaction mixture includes reaction buffer, enzyme (20 μg protein), and PGS-IN-1 in a total volume of 0.2 mL. The mixture is incubated for 15 min at 37°C with shaking and terminated by the addition of 2.5 mL ethyl acetate and 25 μL 1 N formic acid ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Administration ^[1]	Rats: PGS-IN-1 is administered orally to groups of 4-6 male Wistar rats weighting 160-220 g. One hour later, 1 % carrageenin in 0.9 % NaCl is injected subcutaneously into a hind paw. Paw volumes are measured 5 h after the injection ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Katsumi I, et al. Studies on styrene derivatives. I. Synthesis and antiinflammatory activities of alpha-benzylidene-gamma-butyrolactone derivatives. Chem Pharm Bull (Tokyo). 1986 Jan;34(1):121-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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