

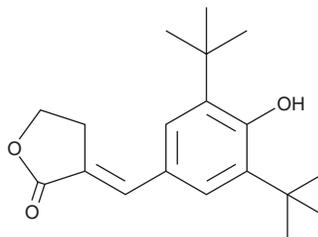
PRODUCT INFORMATION



PGS-IN-1

Item No. 37666

CAS Registry No.: 102271-49-8
Formal Name: (E)-3-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methylene]dihydro-2(3H)-furanone
Synonyms: KME-4, PGS Inhibitor 1, PG Synthetase Inhibitor 1, Prostaglandin Synthetase Inhibitor 1
MF: C₁₂H₂₆O₃
FW: 302.4
Purity: ≥95%
UV/Vis.: λ_{max}: 218, 238, 318 nm
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

PGS-IN-1 is supplied as a solid. A stock solution may be made by dissolving the PGS-IN-1 in the solvent of choice, which should be purged with an inert gas. PGS-IN-1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PGS-IN-1 in ethanol is approximately 5 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Description

PGS-IN-1 is a non-steroidal anti-inflammatory drug (NSAID) and a dual inhibitor of COX and 5-lipoxygenase (5-LO; IC₅₀s = 0.44 and 0.85 μM, respectively).¹ It is selective for 5-LO over 12-LO (IC₅₀ = >100 μM for the rabbit enzyme). Oral administration of PGS-IN-1 (10 mg/kg per day) inhibits paw swelling and bone damage in a rat model of *M. butyricum*-induced arthritis.²

References

1. Hidaka, T., Takeo, K., Hosoe, K., *et al.* Inhibition of polymorphonuclear leukocyte 5-lipoxygenase and platelet cyclooxygenase by α-(3,5-di-tert-butyl-4-hydroxybenzylidene)-γ-butyrolactone (KME-4), a new anti-inflammatory drug. *Jpn. J. Pharmacol.* **38(3)**, 267-272 (1985).
2. Hidaka, T., Hosoe, K., Yamashita, T., *et al.* Effect of α-(3,5-di-tert-butyl-4-hydroxybenzylidene)-γ-butyrolactone (KME-4), a new anti-inflammatory drug, on the established adjuvant arthritis in rats. *Jpn. J. Pharmacol.* **42(2)**, 181-187 (1986).

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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