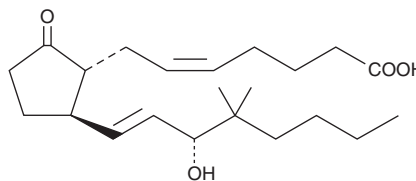


PRODUCT INFORMATION



11-deoxy-16,16-dimethyl Prostaglandin E₂ Item No. 14570

CAS Registry No.: 53658-98-3
Formal Name: 15R-hydroxy-16,16-dimethyl-9-oxo-prosta-5Z,13E-dien-1-oic acid
Synonym: 11-deoxy-16,16-dimethyl PGE₂
MF: C₂₂H₃₆O₄
FW: 364.5
Purity: ≥98%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

11-deoxy-16,16-dimethyl Prostaglandin E₂ (11-deoxy-16,16-dimethyl PGE₂) is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 11-deoxy-16,16-dimethyl PGE₂ in these solvents is approximately 100 mg/ml.

11-deoxy-16,16-dimethyl PGE₂ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 11-deoxy-16,16-dimethyl PGE₂ should be diluted with the aqueous buffer of choice. The solubility of 11-deoxy-16,16-dimethyl PGE₂ in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

11-deoxy-16,16-dimethyl PGE₂ is a stable synthetic analog of PGE₂. It is an agonist for both EP₂ and EP₃ receptors.¹ It is an effective inhibitor of gastric acid secretion and ulcer formation in the rat, with ED₅₀ values of 1 mg/kg and 0.021 mg/kg respectively.² It is 900 times more potent than PGF_{2α} in the contraction of human respiratory tract smooth muscle *in vitro*.³

References

1. Parrott, R.F. and Vellucci, S.V. Effects of centrally administered prostaglandin EP receptor agonists on febrile and adrenocortical responses in the prepubertal pig. *Brain Res. Bull.* **41(2)**, 97-103 (1996).
2. Lippmann, W. Inhibition of gastric acid secretion and ulcer formation in the rat by orally-administered 11-deoxyprostaglandin analogues: 15-Hydroxy-16,16-dimethyl-9-oxoprost-5,13-dienoic acids. *Prostaglandins* **7(3)**, 231-246 (1974).
3. Karim, S.M.M., Adaikan, P.G., and Kottegoda, S.R. Prostaglandins and human respiratory tract smooth muscle: Structure activity relationship. *Adv. Prostaglandin Thromboxane Res.* **7**, 969-980 (1980).

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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