11-deoxy-16,16-dimethyl Prostaglandin E₂

CAS Registry No.: 53658-98-3
Formal Name: 9-oxo-15R-hydroxy-16,16-dimethyl-prosta-
5Z,13E-dien-1-oic acid
Synonym: 11-deoxy-16,16-dimethyl PGE₂
MF: C₃₆H₃₆O₆
FW: 564.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate

Laboratory Procedures
For long term storage, we suggest that 11-deoxy-16,16-dimethyl prostaglandin E₂ (11-deoxy-16,16-dimethyl PGE₂) be stored as supplied at -20°C. It should be stable for at least one year.

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 DMSO, dimethyl formamide or ethanol 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. Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations.

Organic solvent-free solutions of 11-deoxy-16,16-dimethyl PGE₂ can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 11-deoxy-16,16-dimethyl PGE₂ in PBS (pH 7.2) is approximately 5 mg/ml. Store aqueous solutions of 11-deoxy-16,16-dimethyl PGE₂ on ice and use within 12 hours. We strongly recommend using a fresh preparation each day.

11-deoxy-16,16-dimethyl PGE₂ exhibits a variety of biological functions. 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. It is 200 times more potent than PGF₂α in the contraction of human respiratory tract smooth muscle in vitro.

References

Related Product
Prostaglandin E₂ - Item No. 14010

**WARNING:** This product is for laboratory research only; not for administration to humans. Not for human or veterinary diagnostic or therapeutic use.

**MATERIAL SAFETY DATA**
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, be sure to review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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