

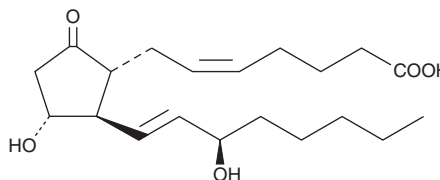
PRODUCT INFORMATION



15(R)-Prostaglandin E₂

Item No. 14710

CAS Registry No.: 38873-82-4
Formal Name: 9-oxo-11 α ,15R-dihydroxy-prosta-5Z,13E-dien-1-oic acid
Synonyms: 15-*epi* PGE₂, 15(R)-PGE₂
MF: C₂₀H₃₂O₅
FW: 352.5
Purity: \geq 98%
Stability: \geq 1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that 15(R)-prostaglandin E₂ (15(R)-PGE₂) be stored as supplied at -20°C. It should be stable for at least one year.

15(R)-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, ethanol, and dimethyl formamide purged with an inert gas can be used. The solubility of 15(R)-PGE₂ in these solvents is approximately 100 mg/ml. 15(R)-PGE₂ is stable for at least six months in these solvents if stored at -20°C.

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. If an organic solvent-free solution of 15(R)-PGE₂ is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 15(R)-PGE₂ in PBS (pH 7.2) is approximately 5 mg/ml. Avoid adding 15(R)-PGE₂ to basic solutions (pH > 7.4), since base treatment will degrade the 15(R)-PGE₂ to 15(R)-PGA₂ and 15(R)-PGB₂. Store aqueous solutions of 15(R)-PGE₂ on ice and use within 12 hours of preparation.

Description

15(R)-PGE₂ is the opposite C-15 stereoisomer of the 15(S)-PGE₂. 15(R)-PGE₂ is much less potent than the natural stereoisomer in most biological assays. In hamsters, a dose of 0.20 mg of PGE₂ (Item No. 14010) inhibits fertility by 100%, whereas a dose of 1.0 mg of 15(R)-PGE₂ inhibits fertility by only 17%.¹ 15(R)-PGE₂ occurs as a minor impurity in some pharmaceutical formulations of PGE₂ used in obstetrics.

Reference

1. Miller, W.L. and Sutton, M.J. Relative biological activity of certain prostaglandins and their enantiomers. *Prostaglandins* **11**, 77-84 (1976).

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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