

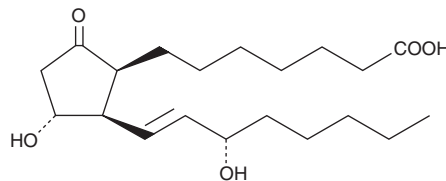
PRODUCT INFORMATION



8-iso Prostaglandin E₁

Item No. 13360

CAS Registry No.: 21003-46-3
Formal Name: (8 β ,11 α ,13E,15S)-11,15-dihydroxy-9-oxo-prost-13-en-1-oic acid
Synonyms: 8-*epi* PGE₁, 8-*iso* PGE₁, Ovinonic Acid
MF: C₂₀H₃₄O₅
FW: 354.5
Purity: \geq 98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

8-iso Prostaglandin E₁ (8-iso PGE₁) is supplied as a crystalline solid. A stock solution may be made by dissolving the 8-iso PGE₁ in the solvent of choice, which should be purged with an inert gas. 8-iso PGE₁ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 8-iso PGE₁ in these solvents is approximately 50 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 aqueous solutions of 8-iso PGE₁ can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 8-iso PGE₁ in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Isoprostanes are a family of prostanoid molecules of non-cyclooxygenase origin.¹ 8-iso PGE₁ is an isoprostane which is found in human semen at levels of 7 μ g/ml.² It is a pulmonary vasoconstrictor in anesthetized dogs with a potency similar to PGF_{2 α} .³

References

1. Morrow, J.D., Hill, K.E., Burk, R.F., *et al.* A series of prostaglandin F₂-like compounds are produced *in vivo* in humans by a non-cyclooxygenase, free radical-catalyzed mechanism. *Proc. Natl. Acad. Sci. USA* **87**(23), 9383-9387 (1990).
2. Taylor, P.L. The 8-isoprostaglandins: Evidence for eight compounds in human semen. *Prostaglandins* **17**(2), 259-267 (1979).
3. Nakano, J. and Kessinger, J.M. Effects of 8-isoprostaglandin E₁ on the systemic and pulmonary circulations in dogs. *Proc. Soc. Exp. Biol. Med.* **133**(4), 1314-1317 (1970).

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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