

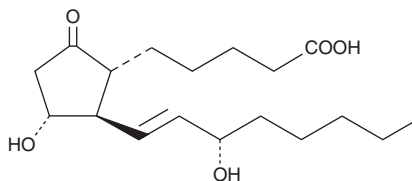
PRODUCT INFORMATION



2,3-dinor Prostaglandin E₁

Item No. 13120

CAS Registry No.: 7046-40-4
Formal Name: (1R,2R,3R)-3-hydroxy-2-[(1E,3S)-3-hydroxy-1-octen-1-yl]-5-oxo-cyclopentanepentanoic acid
Synonym: 2,3-dinor PGE₁
MF: C₁₈H₃₀O₅
FW: 326.4
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

2,3-dinor Prostaglandin E₁ (2,3-dinor PGE₁) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 2,3-dinor PGE₁ in ethanol and DMSO is approximately 50 mg/ml and approximately 100 mg/ml in DMF.

2,3-dinor PGE₁ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 2,3-dinor PGE₁ should be diluted with the aqueous buffer of choice. The solubility of 2,3-dinor PGE₁ in PBS (pH 7.2) is approximately 1.67 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PGE₁ is not a major naturally occurring prostaglandin, but it is widely administered clinically for several indications including peripheral occlusive vascular disease, erectile dysfunction and in neonatal cardiology.^{1,2} The metabolism of PGE₁ is normally initiated by oxidation at C-15, resulting in 13,14-dihydro-15-keto PGE₁ as the major metabolite. However, inhibition of this pathway or saturation by excess substrate could theoretically lead to enhanced production of 2,3-dinor metabolites, including 2,3-dinor PGE₁. The biological activity of 2,3-dinor PGE₁ has not been published. Cayman Chemical is a leading supplier of prostaglandins and their metabolites, and is currently the exclusive manufacturer of 2,3-dinor PGE₁.

References

1. Virag, R., Shoukry, K., Floresco, J., *et al.* Intracavernous self-injection of vasoactive drugs in the treatment of impotence: 8-Year experience with 615 cases. *J. Urol.* **145**(2), 287-293 (1991).
2. Hoshi, K. Approved indications of lipo-PGE₁ in Japan. *Adv. Drug Deliv. Rev.* **20**(2-3), 171-176 (1996).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/02/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM