

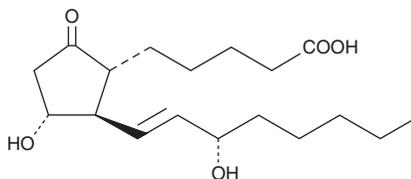
# PRODUCT INFORMATION



## 2,3-dinor Prostaglandin E<sub>1</sub>

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 PGE<sub>1</sub>  
**MF:** C<sub>18</sub>H<sub>30</sub>O<sub>5</sub>  
**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 E<sub>1</sub> (2,3-dinor PGE<sub>1</sub>) 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 PGE<sub>1</sub> in ethanol and DMSO is approximately 50 mg/ml and approximately 100 mg/ml in DMF.

2,3-dinor PGE<sub>1</sub> is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 2,3-dinor PGE<sub>1</sub> should be diluted with the aqueous buffer of choice. The solubility of 2,3-dinor PGE<sub>1</sub> 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

PGE<sub>1</sub> 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.<sup>1,2</sup> The metabolism of PGE<sub>1</sub> is normally initiated by oxidation at C-15, resulting in 13,14-dihydro-15-keto PGE<sub>1</sub> 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 PGE<sub>1</sub>. The biological activity of 2,3-dinor PGE<sub>1</sub> 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 PGE<sub>1</sub>.

### 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-PGE<sub>1</sub> 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.

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