Product Information

2,3-dinor Prostaglandin E₁

Item No. 13120

CAS Registry No.: 7046-40-4
Formal Name: 9-oxo-11α,15S-dihydroxy-2,3-dinor-prost-13E-en-1-oic acid
MF: C₁₈H₃₀O₅
FW: 326.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A solution in ethanol

Laboratory Procedures

For long term storage, we suggest that 2,3-dinor Prostaglandin E₁ (2,3-dinor PGE₁) be stored as supplied at -20°C. It will be stable for at least two years.

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 DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 2,3-dinor PGE₁ in these solvents is approximately 50 mg/ml. 2,3-dinor PGE₁ 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 2,3-dinor PGE₁ is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. 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.

PGE₁ is not a major naturally occurring PG, but it is widely administered clinically for several indications including peripheral occlusive vascular disease, erectile dysfunction, and in neonatal cardiology.¹² 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.

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/13120

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, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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