

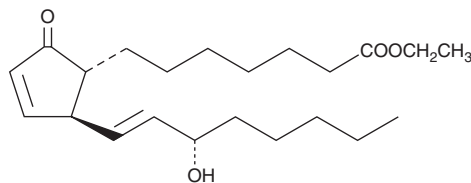
PRODUCT INFORMATION



Prostaglandin A₁ ethyl ester

Item No. 10020

CAS Registry No.: 93464-24-5
Formal Name: 9-oxo-15S-hydroxy-prosta-10,13E-dien-1-oic acid, ethyl ester
Synonym: PGA₁ ethyl ester
MF: C₂₂H₃₆O₄
FW: 364.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A solution in methyl acetate
UV/Vis.: λ_{max}: 218 nm



Laboratory Procedures

Prostaglandin A₁ ethyl ester (PGA₁ ethyl ester) is a prodrug form of PGA₁ with enhanced lipid solubility. For long term storage, we suggest that PGA₁ ethyl ester be stored as supplied at -20°C. It should be stable for at least two years.

PGA₁ ethyl ester 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 ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of PGA₁ ethyl ester in ethanol is approximately 30 mg/ml and approximately 50 mg/ml in DMSO and DMF. PGA₁ ethyl ester 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 PGA₁ ethyl ester is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of PGA₁ ethyl ester in PBS (pH 7.2) is approximately 0.25 mg/ml. Store aqueous solutions of PGA₁ ethyl ester on ice and use within 12 hours, we strongly recommend using a fresh preparation each day.

Description

Prostaglandins of the A-series are natural products of gorgonian soft coral. PGA₁ has been shown to cause renal vasodilation, increased urine sodium excretion, and lowered arterial pressure in hypertensive patients.¹ There are no published reports on the biological activity of PGA₁ ethyl ester at this time.

Reference

1. Krakoff, L.R., Vlachakis, N., Mendlowitz, M., *et al.* Differential effect of prostaglandin A₁ in hypertensive patients with low, normal and high renin. *Clin. Sci. Mol. Med.* **48**, 311s-313s (1975).

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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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