

PRODUCT INFORMATION



13,14-dihydro-15-keto Prostaglandin D₁

Item No. 10010425

CAS Registry No.: 1392219-79-2

Formal Name: 9a-hydroxy-11,15-dioxo-prost-1-oic acid

Synonym: 13,14-dihydro-15-keto PGD₁

MF: 354.5

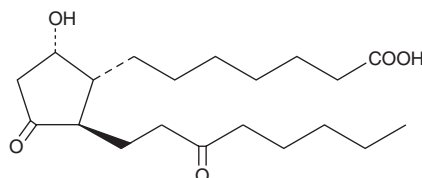
FW: C₂₀H₃₄O₅

Purity: ≥98%

Supplied as: A solution in methyl acetate

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

13,14-dihydro-15-keto PGD₁ 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 13,14-dihydro-15-keto PGD₁ in ethanol and DMF is approximately 50 mg/ml and approximately 30 mg/ml in DMSO.

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 13,14-dihydro-15-keto PGD₁ is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 13,14-dihydro-15-keto PGD₁ in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PGD₁ is the theoretical D-series metabolite of dihomo-g-linolenic acid (DGLA), but to date it has not been isolated as a natural product. It is an inhibitor of ADP-induced platelet aggregation in humans with an IC₅₀ value of 320 ng/ml, about 1/10 as potent as PGD₂.¹ 13,14-dihydro-15-keto PGD₁ is the theoretical metabolite of PGD₁ via the 15-hydroxy PG dehydrogenase metabolic pathway. No biological studies for this compound have been reported.

Reference

1. Bundy, G.L., Morton, D.R., Peterson, D.C., *et al.* Synthesis and platelet aggregation inhibiting activity of prostaglandin D analogues. *J. Med. Chem.* **26**, 790-799 (1983).

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, 03/07/2024

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