

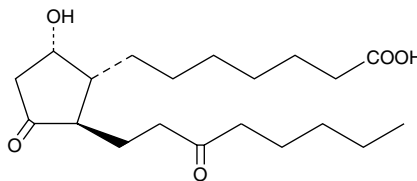
Product Information



13,14-dihydro-15-keto Prostaglandin D₁

Item No. 10010425

CAS Registry No.: 1392219-79-2
Formal Name: 9 α -hydroxy-11,15-dioxo-prost-1-oic acid
Synonym: 13,14-dihydro-15-keto PGD₁
MF: C₂₀H₃₄O₅
FW: 354.5
Purity: \geq 98%
Stability: \geq 1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that 13,14-dihydro-15-keto prostaglandin D₁ (13,14-dihydro-15-keto PGD₁) be stored as supplied at -20°C. It should be stable for at least one year.

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.

PGD₁ is the theoretical D-series metabolite of dihomo- γ -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).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10010425

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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 Safety Data Sheet, which has been sent *via* email to your institution.

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