

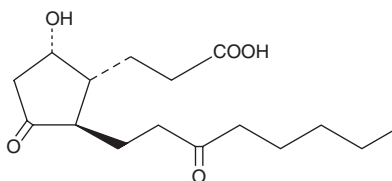
Product Information



13,14-dihydro-15-keto-tetranor Prostaglandin D₂

Catalog No. 13100

Formal Name:	9 α -hydroxy-11,15-dioxo-2,3,4,5-tetranor-prostanoic acid
Synonym:	13,14-dihydro-15-keto-tetranor PGD ₂
MF:	C ₁₆ H ₂₆ O ₅
FW:	298.4
Purity:	≥95%
Stability:	≥6 months at -20°C
Supplied as:	A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that 13,14-dihydro-15-keto-tetranor Prostaglandin D₂ (13,14-dihydro-15-keto-tetranor PGD₂) be stored as supplied at -20°C. It should be stable for at least six months.

13,14-dihydro-15-keto-tetranor PGD₂ 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 13,14-dihydro-15-keto-tetranor PGD₂ in these solvents is approximately 50 mg/ml.

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-tetranor PGD₂ is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 13,14-dihydro-15-keto-tetranor PGD₂ in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

A common metabolic pathway for several PGs, including PGD₂, involves the reduction of the double bond between C-13 and C-14 and oxidation of the hydroxyl group at C-15, producing 13,14-dihydro-15-keto PGs. The removal of four carbons at the α -terminus and oxidation of the terminal ω -carbon produces the abundant urinary metabolites, including tetranor-PGDM.¹ 13,14-dihydro-15-keto-tetranor PGD₂ is a potential metabolite of PGD₂. It would be produced from the known metabolite 13,14-dihydro-15-keto PGD₂ (Catalog No. 12610), which is a known agonist for the CRTH2/DP₂ receptor.²

References

1. Song, W.-L., Wang, M., Ricciotti, E., *et al.* Tetranor PGDM, an abundant urinary metabolite reflects biosynthesis of prostaglandin D₂ in mice and humans. *J. Biol. Chem.* **283**(2), 1179-1188 (2008).
2. Hirai, H., Tanaka, K., Yoshie, O., *et al.* Prostaglandin D₂ selectivity induces chemotaxis in T helper type 2 cells, eosinophils, and basophils *via* seven-transmembrane receptor CRTH₂. *J. Exp. Med.* **193**(2), 255-261 (2001).

Related Products

Prostaglandin D₂ - Cat. No. 12010 • 13,14-dihydro-15-keto Prostaglandin D₂ - Cat. No. 12610 • tetranor-PGDM - Cat. No. 12850 • tetranor-PGDM EIA Kit - Cat. No. 501001 • tetranor-PGDM-d₆ - Cat. No. 10009039

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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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