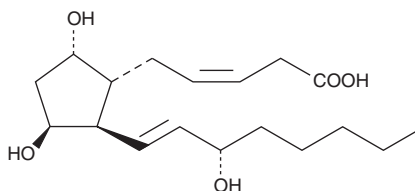


PRODUCT INFORMATION



2,3-dinor-11 β -Prostaglandin F_{2 α} Item No. 16530

CAS Registry No.: 240405-20-3
Formal Name: (3Z)-5-[(1R,2R,3S,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-1-octen-1-yl]cyclopentyl]-3-pentenoic acid
Synonyms: BPG, 2,3-dinor-11 β -PGF_{2 α} , 2,3-dinor-11-*epi* PGF_{2 α}
MF: C₁₈H₃₀O₅
FW: 326.4
Purity: \geq 98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

2,3-dinor-11 β -Prostaglandin F_{2 α} (2,3-dinor-11 β -PGF_{2 α}) 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-11 β -PGF_{2 α} in these solvents is approximately 100 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 2,3-dinor-11 β -PGF_{2 α} 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-11 β -PGF_{2 α} in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

2,3-dinor-11 β -PGF_{2 α} is a metabolite of PGD₂ (Item No. 12010).^{1,2} Urinary excretion of 2,3-dinor-11 β -PGF_{2 α} is increased in patients with mast cell activation disease (MCAD) and has been used as a marker of increased PGD₂ levels.³ 2,3-dinor-11 β -PGF_{2 α} levels are also increased in the urine of patients with asthma and are positively correlated with impaired lung function.⁴

References

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- 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).
- Castells, M. and Butterfield, J. Mast cell activation syndrome and mastocytosis: Initial treatment options and long-term management. *J. Allergy Clin. Immunol. Pract.* **7**(4), 1097-1106 (2019).
- Kolmert, J., Gómez, C., Balmora, D., *et al.* Urinary leukotriene E₄ and prostaglandin D₂ metabolites increase in adult and childhood severe asthma characterized by type 2 inflammation. A clinical observational study. *Am. J. Respir. Crit. Care Med.* **203**(1), 37-53 (2021).

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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