

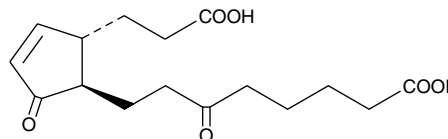
Product Information



tetranor-PGJM

Item No. 13363

CAS Registry No.: 1352751-83-7
Formal Name: 8-((1R,2S)-2-(2-carboxyethyl)-5-oxocyclopent-3-en-1-yl)-6-oxooctanoic acid
Synonym: tetranor-PGJ Metabolite
MF: C₁₆H₂₂O₆
FW: 310.3
Purity: ≥98%
Stability: ≥6 months at -80°C
Supplied as: A solution in methyl acetate
UV/Vis.: λ_{max}: 219 nm



Laboratory Procedures

For long term storage, we suggest that tetranor-PGJM be stored as supplied at -80°C. It should be stable for at least six months.

tetranor-PGJM 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 purged with an inert gas can be used. The solubility of tetranor-PGJM in these solvents is approximately 20 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 tetranor-PGJM is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of tetranor-PGJM in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Prostaglandin D₂ (PGD₂) plays a pharmacological role in allergic and asthmatic anaphylaxis, normal physiological sleep and lowering of body temperature, as well as inhibits platelet aggregation and relaxes vascular smooth muscle.¹ tetranor-PGDM is an abundant urinary metabolite of PGD₂ that is detectable both in human and mouse and, as such, is used as a biomarker of PGD₂ biosynthesis.² tetranor-PGJM is a potential PGD₂ metabolite, formed by the elimination of the C-9 hydroxyl group. This compound may serve as a useful control in the analysis of PGD₂ biosynthesis.

References

1. Giles, H. and Leff, P. The biology and pharmacology of PGD₂. *Prostaglandins* **35**, 277-300 (1988).
2. 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).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/13363

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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