

PRODUCT INFORMATION



tetranor-PGAM

Item No. 13369

CAS Registry No.: 52510-53-9

Formal Name: 5R-(2-carboxyethyl)-ε,4-dioxo-2-cyclopentene-1S-octanoic acid

Synonym: tetranor-Prostaglandin A Metabolite

MF: C₁₆H₂₂O₆

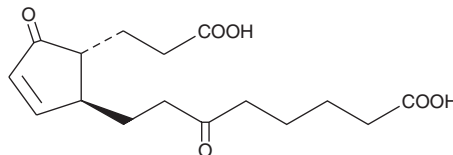
FW: 310.3

Purity: ≥98%

Supplied as: A 100 µg/ml solution in methyl acetate

Storage: -80°C

Stability: ≥6 months



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

Laboratory Procedures

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

Description

Prostaglandin E₂ (PGE₂), one of the most widely investigated PGs, can be used as a biomarker of inflammation, disease state, or therapeutic effectiveness. However due to its rapid metabolism, direct measurement of PGE₂ in biological samples is difficult. The major urinary metabolite of PGE₂, tetranor-PGEM, serves as an indirect marker of PGE₂ biosynthesis.^{1,2} Though like PGE₂, tetranor-PGEM is also chemically unstable, tetranor-PGAM is a dehydration product of tetranor-PGEM and can be measured as a surrogate for tetranor-PGEM levels in urine.³

References

1. Hamberg, M. Inhibition of prostaglandin synthesis in man. *Biochem. Biophys. Res. Commun.* **49**, 720-726 (1972).
2. Honda, H., Fukawa, K., and Sawabe, T. Influence of adjuvant arthritis on main urinary metabolites of prostaglandin F and E rats. *Prostaglandins* **19**, 259-269 (1980).
3. Neale, J.R. and Dean, B.J. Liquid chromatography-tandem mass spectrometric quantification of the dehydration product of tetranor PGE-M, the major urinary metabolite of prostaglandin E₂ in human urine. *J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.* **871(1)**, 72-77 (2008).

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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