

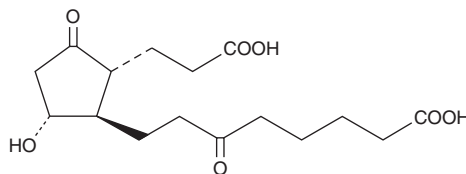
PRODUCT INFORMATION



tetranor-PGEM

Item No. 14840

CAS Registry No.: 24769-56-0
Formal Name: 9,15-dioxo-11 α -hydroxy-13,14-dihydro-2,3,4,5-tetranor-prostan-1,20-dioic acid
Synonym: tetranor-Prostaglandin E Metabolite
MF: C₁₆H₂₄O₇
FW: 328.4
Purity: \geq 98%
Supplied as: A solution in methyl acetate
Storage: -80°C
Stability: \geq 1 year



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

Laboratory Procedures

tetranor-Prostaglandin E metabolite (tetranor-PGEM) 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 DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of tetranor-PGEM in these solvents is approximately 50 mg/ml.

tetranor-PGEM is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of tetranor-PGEM should be diluted with the aqueous buffer of choice. The solubility of tetranor-PGEM in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

tetranor-PGEM is the major urinary metabolite of PGE₂ (Item No. 14010).¹ Urine levels of tetranor-PGEM are increased in patients with diabetic nephropathy.² Increased urine levels are also associated with a higher risk of breast cancer in postmenopausal women with a body mass index (BMI) of less than 25 kg/m².³

References

1. 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).
2. Morita, Y., Kurano, M., Sakai, E., *et al.* Simultaneous analyses of urinary eicosanoids and related mediators identified tetranor-prostaglandin E metabolite as a novel biomarker of diabetic nephropathy. *J. Lipid Res.* **62**, 100120 (2021).
3. Cui, Y., Shu, X.O., Gao, Y.T., *et al.* Urinary prostaglandin E₂ metabolite and breast cancer risk. *Cancer Epidemiol. Biomarkers Prev.* **23(12)**, 2866-2873 (2014).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 09/16/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM