

PRODUCT INFORMATION



11-dehydro-2,3-dinor Thromboxane B₂-d₉

Item No. 38254

Formal Name: (Z)-5-((2R,3S,4S)-4-hydroxy-2-((S,E)-3-hydroxyoct-1-en-1-yl-5,5,6,6,7,7,8,8,8-d₉)-6-oxotetrahydro-2H-pyran-3-yl)pent-3-enoic acid

Synonym: 11-dehydro-2,3-dinor TXB₂-d₉

MF: C₁₈H₁₉D₉O₆

FW: 349.5

Chemical Purity: ≥95% (11-dehydro-2,3-dinor TXB₂)

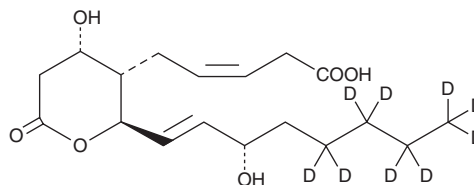
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀

Supplied as: A solution in methyl acetate

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

11-dehydro-2,3-dinor Thromboxane B₂-d₉ (11-dehydro-2,3-dinor TXB₂-d₉) is intended for use as an internal standard for the quantification of 11-dehydro-2,3-dinor TXB₂ (Item No. 19510) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

11-dehydro-2,3-dinor TXB₂-d₉ 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 11-dehydro-2,3-dinor TXB₂-d₉ in these solvents is approximately 100, 25, and 50 mg/ml, respectively.

Description

11-dehydro-2,3-dinor TXB₂ is a metabolite of the TXA₂ inactive metabolite TXB₂ (Item No. 19030).¹ It is formed from TXB₂ by cytosolic aldehyde dehydrogenase (ALDH) and β-oxidation.^{1,2} Levels of 11-dehydro-2,3-dinor TXB₂ are increased 5.2-fold in a surgery-induced rat model of tendon overuse.³

References

1. Roberts, L.J., II, Sweetman, B.J., and Oates, J.A. Metabolism of thromboxane B₂ in Man. Identification of the major urinary metabolite. *J. Biol. Chem.* **256(16)**, 8384-8393 (1981).
2. Westlund, P., Fylling, A.C., Cederlund, E., et al. 11-Hydroxythromboxane B₂ dehydrogenase is identical to cytosolic aldehyde dehydrogenase. *FEBS Lett.* **345(2-3)**, 99-103 (1994).
3. Markworth, J.F., Sugg, K.B., Sarver, D.C., et al. Local shifts in inflammatory and resolving lipid mediators in response to tendon overuse. *FASEB J.* **35(6)**, e21655 (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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