

PRODUCT INFORMATION



2,3-dinor Thromboxane B₂-d₉

Item No. 10009584

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

Synonym: 2,3-dinor TXB₂-d₉

MF: C₁₈H₂₁D₉O₆

FW: 351.5

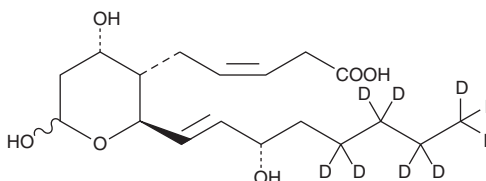
Chemical Purity: ≥98% 2,3-dinor Thromboxane B₂ Deuterium

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

2,3-dinor Thromboxane B₂-d₉ (2,3-dinor TXB₂-d₉) is intended for use as an internal standard for the quantification of 2,3-dinor TXB₂ (Item No. 19050) 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).

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

Description

TXB₂ is released in substantial quantities from aggregating platelets and metabolized during circulation to 11-dehydro TXB₂ and 2,3-dinor TXB₂.¹ 2,3-dinor TXB₂ is an abundant urinary metabolite of TXB₂ and can be used as a marker for *in vivo* TXA₂ synthesis.^{2,3} In healthy male volunteers, the median excretion of 2,3-dinor TXB₂ is 10.3 ng/hour (138 pg/mg creatine).²

References

1. Ciabattoni, G., Pugliese, F., Davi, G., *et al.* Fractional conversion of thromboxane B₂ to urinary 11-dehydrothromboxane B₂ in man. *Biochim. Biophys. Acta* **992**, 66-70 (1989).
2. Lawson, J.A., Brash, A.R., Doran, J., *et al.* Measurement of urinary 2,3-dinor-thromboxane B₂ and thromboxane B₂ using bonded-phase phenylboronic acid columns and capillary gas chromatography-negative-ion chemical ionization mass spectrometry. *Anal. Biochem.* **150**, 463-470 (1985).
3. Lawson, J.A., Patrono, C., Ciabattoni, G., *et al.* Long-lived enzymatic metabolites of thromboxane B₂ in the human circulation. *Anal. Biochem.* **155**, 198-205 (1986).

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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