

PRODUCT INFORMATION

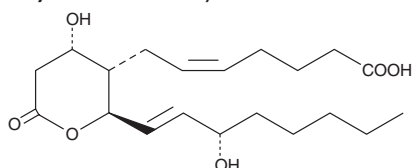


11-dehydro Thromboxane B₂ Quant-PAK

Item No. 10006831

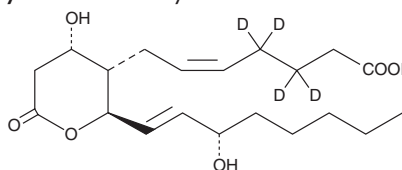
11-dehydro Thromboxane B₂

CAS Registry No.: 67910-12-7
Formal Name: 9 α ,15S-dihydroxy-11-oxothromba-5Z,13E-dien-1-oic acid
Synonyms: 11-dehydro TXB₂
11-keto TXB₂
MF: C₂₀H₃₂O₆
FW: 368.5
Purity: \geq 98%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: \geq 2 years



11-dehydro Thromboxane B₂-d₄

CAS Registry No.: 1240398-15-5
Formal Name: 9 α ,15S-dihydroxy-11-oxothromba-5Z,13E-dien-1-oic-3,3,4,4-d₄ acid
Synonym: 11-keto TXB₂-d₄,
11-keto Thromboxane B₂-d₄
MF: C₂₀H₂₈D₄O₆
FW: 372.5
Chemical Purity: \geq 98% (11-dehydro Thromboxane B₂)
Deuterium Incorporation: \geq 99% deuterated forms (d₁-d₄); \leq 1% d₀
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: \geq 2 years



Laboratory Procedures

This 11-dehydro thromboxane B₂ (11-dehydro TXB₂) Quant-PAK contains 50 μ g of 11-dehydro TXB₂-d₄ and 2-4 mg of 11-dehydro TXB₂ (please see the vial for exact amount and concentration). For long term storage, we suggest that 11-dehydro TXB₂ and 11-dehydro TXB₂-d₄ be stored as supplied at -20°C. They should be stable for at least one year.

Both vials are supplied as solutions 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 TXB₂ and 11-dehydro TXB₂-d₄ in these solvents is approximately 100, 25, and 50 mg/ml, respectively.

11-dehydro TXB₂-d₄ is intended for use as an internal standard for the quantification of 11-dehydro TXB₂ by GC- or LC-mass spectrometry. 11-dehydro TXB₂ is a urinary metabolite of TXB₂ and TXA₂. The accuracy of the sample weight in the 11-dehydro TXB₂-d₄ vial is between 5% over and 2% under the weight indicated on the vial. For better precision we have provided a precisely weighed unlabeled 11-dehydro TXB₂, with the precise weight (2-4 mg) indicated on the vial. Using this vial, the deuterated standard can be quantified by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Description

TXB₂ is released in substantial quantities from aggregating platelets and metabolized during circulation to 11-dehydro TXB₂ and 2,3-dinor TXB₂.¹ 11-dehydro TXB₂ is one of the main plasma metabolites of TXB₂ and can be used as a marker for *in vivo* TXA₂ synthesis.¹⁻⁴ The mean plasma level in human males is 0.9-4.3 pg/ml and the half life is 45-60 minutes.²⁻⁴ Urinary concentrations of 11-dehydro TXB₂ are approximately 30-70 ng/mmol creatinine.^{5,6}

References

1. Ciabattoni, G., Pugliese, F., Davi, G., et al. *Biochim. Biophys. Acta* **992**(1), 66-70 (1989).
2. Fitzgerald, G.A., Lawson, J., Blair, I.A., et al. *Adv. Prostaglandin Thromboxane Leukotriene Res.* **15**, 87-90 (1985).
3. Takasaki, W., Nakagawa, A., Tanaka, Y., et al. *Thromb. Res.* **63**(3), 331-341 (1991).
4. Catella, F., Healy, D., Lawson, J.A., et al. *Proc. Natl. Acad. Sci. USA* **83**(16), 5861-5865 (1986).
5. Lellouche, F., Fradin, A., FitzGerald, G., et al. *Prostaglandins* **40**(3), 297-310 (1990).
6. Perneby, C., Granstrom, E., Beck, O., et al. *Thromb. Res.* **96**(6), 427-436 (1999).

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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