# **PRODUCT INFORMATION**



## 11-dehydro Thromboxane B<sub>2</sub>

Item No. 19500

CAS Registry No.: 67910-12-7

11-dehydro TXB<sub>2</sub>, 11-keto TXB<sub>2</sub> Synonyms: 9α,15S-dihydroxy-11-oxothromba-Formal Name:

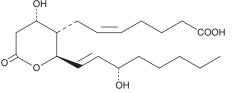
5Z,13E-dien-1-oic acid

MF:  $C_{20}H_{32}O_6$ 368.5 FW: **Purity:** ≥ 98%

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 TXB<sub>2</sub> 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 TXB<sub>2</sub> in these solvents is approximately 100, 25, 50 mg/ml, respectively.

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 11-dehydro TXB2 is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 11-dehydro TXB<sub>2</sub> in PBS (pH 7.2) is approximately 100 µg/ml. Avoid adding 11-dehydro TXB2 to basic solutions (pH 7.4), since base treatment will cause the hydrolysis of the lactone function of 11-dehydro TXB<sub>2</sub>.We do not recommend storing the aqueous solution for more than one day.

#### Description

TXB2 is released in substantial quantities from aggregating platelets and metabolized during circulation to 11-dehydro  $\mathsf{TXB}_2$  and 2,3-dinor  $\mathsf{TXB}_2$ . 11-dehydro  $\mathsf{TXB}_2$  is one of the main plasma metabolites of  $\mathsf{TXB}_2$  and can be used as a marker for *in vivo*  $TXA_2$  synthesis.<sup>1-4</sup> The mean plasma level of 11-dehydro  $TXB_2$  in human males is 0.9-4.3 pg/ml and the half-life is 45-60 minutes.<sup>2-4</sup> Urinary concentrations of 11-dehydro  $TXB_2$  are approximately 30-70 ng/mmol creatinine.<sup>5,6</sup>

#### References

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

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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### **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