

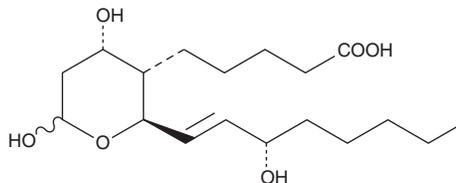
# PRODUCT INFORMATION



## 2,3-dinor Thromboxane B<sub>1</sub>

Item No. 10006330

**CAS Registry No.:** 196493-76-2  
**Formal Name:** 9 $\alpha$ ,11,15S-trihydroxy-2,3-dinor-thromba-13E-en-1-oic acid  
**Synonym:** 2,3-dinor TXB<sub>1</sub>  
**MF:** C<sub>18</sub>H<sub>32</sub>O<sub>6</sub>  
**FW:** 344.4  
**Purity:**  $\geq$ 98%  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:**  $\geq$ 2 years



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

### Laboratory Procedures

2,3-dinor TXB<sub>1</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 (DMF) purged with an inert gas can be used. The solubility of 2,3-dinor TXB<sub>1</sub> in these solvents is approximately 50 mg/ml in ethanol and DMF and approximately 20 mg/ml DMSO.

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 2,3-dinor TXB<sub>1</sub> is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 2,3-dinor TXB<sub>1</sub> in PBS (pH 7.2) is approximately 0.15 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

TXB<sub>2</sub> is released in substantial quantities from aggregating platelets and metabolized during circulation to 11-dehydro TXB<sub>2</sub> and 2,3-dinor TXB<sub>2</sub>.<sup>1</sup> In rats and rabbits, 2,3-dinor TXB<sub>1</sub> has been identified as another urinary metabolite of TXB<sub>2</sub>.<sup>2,3</sup> However in human urine, only trace amounts of 2,3-dinor TXB<sub>1</sub> have been identified.<sup>2</sup> In rats, 2,3-dinor TXB<sub>1</sub> is excreted at a much higher rate than 2,3-dinor TXB<sub>2</sub> (19.2  $\pm$  4.9 ng/24 hr and 1.6  $\pm$  0.3 ng/24 hr, respectively).<sup>2</sup> Therefore, urinary 2,3-dinor TXB<sub>1</sub> is a suitable marker of thromboxane biosynthesis in rats.

### References

1. Ciabattini, G., Pugliese, F., Davi, G., *et al.* Fractional conversion of thromboxane B<sub>2</sub> to urinary 11-dehydrothromboxane B<sub>2</sub> in man. *Biochim. Biophys. Acta* **992**, 66-70 (1989).
2. Chiabrando, C., Corada, M., Bachi, A., *et al.* Urinary excretion of 2,3-dinor-thromboxane B<sub>1</sub>, a major metabolite of thromboxane B<sub>2</sub> in the rat. *Prostaglandins* **47**, 409-422 (1994).
3. Westlund, P., Kumlin, M., Nordenström, A., *et al.* Circulating and urinary thromboxane B<sub>2</sub> metabolites in the rabbit: 11-dehydro-thromboxane B<sub>2</sub> as parameter of thromboxane production. *Prostaglandins* **31(3)**, 413-443 (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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