

# PRODUCT INFORMATION



## Pinane Thromboxane A<sub>2</sub>

Item No. 19020

CAS Registry No.: 71111-01-8

Formal Name: (5Z)-7-[(1S,2R,3R,5S)-3-[(1E,3S)-3-hydroxy-1-octen-1-yl]-6,6-dimethylbicyclo[3.1.1]hept-2-yl]-5-heptenoic acid

Synonyms: 15(S)-Pinane Thromboxane A<sub>2</sub>, Pinane TXA<sub>2</sub>, PTA<sub>2</sub>

MF: C<sub>24</sub>H<sub>40</sub>O<sub>3</sub>

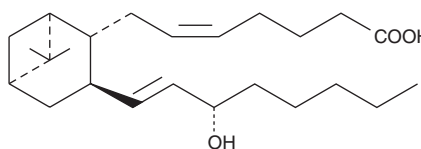
FW: 376.6

Purity: ≥98%

Supplied as: A solution in ethanol

Storage: -20°C

Stability: ≥2 years



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

### Laboratory Procedures

Pinane thromboxane A<sub>2</sub> (PTA<sub>2</sub>) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of PTA<sub>2</sub> in these solvents is approximately 25 and 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 PTA<sub>2</sub> is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of PTA<sub>2</sub> in PBS, pH 7.2, is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

PTA<sub>2</sub> is a stable analog of TXA<sub>2</sub>. It is a TP receptor antagonist and an inhibitor of thromboxane synthase.<sup>1,2</sup> PTA<sub>2</sub> inhibits U-46619-induced cat coronary artery constriction (ID<sub>50</sub> = 0.1 μM), U-46619-induced aggregation of human platelets (IC<sub>50</sub> = 2 μM), and rabbit platelet thromboxane synthase (ID<sub>50</sub> = 50 μM). PTA<sub>2</sub> does not affect PGI synthase up to a concentration of 100 μM.<sup>1</sup>

### References

1. Nicolaou, K.C., Magolda, R.L., Smith, J.B., *et al.* Synthesis and biological properties of pinane-thromboxane A<sub>2</sub>, a selective inhibitor of coronary artery constriction, platelet aggregation, and thromboxane formation. *Proc. Natl. Acad. Sci. USA* **76**(6), 2566-2570 (1979).
2. Schrör, K., Smith, E.F., III, Bickerton, M., *et al.* Preservation of ischemic myocardium by pinane thromboxane A<sub>2</sub>. *Am. J. Physiol.* **238**(1), H87-H92 (1980).

#### 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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