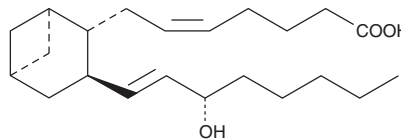


PRODUCT INFORMATION



Carbocyclic Thromboxane A₂ Item No. 19010

CAS Registry No.: 74034-56-3
Formal Name: (5Z)-7-[(2S,3R)-3-[(1E,3S)-3-hydroxy-1-octen-1-yl]bicyclo[3.1.1]hept-2-yl]-5-heptenoic acid
Synonyms: Carbocyclic TXA₂, CTA₂
MF: C₂₂H₃₆O₃
FW: 348.5
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥1 year



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

Laboratory Procedures

Carbocyclic thromboxane A₂ (CTA₂) is supplied as a solution in ethanol. To change the solvent, simply evaporate the CTA₂ 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 CTA₂ 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 CTA₂ is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of CTA₂ in PBS (pH 7.2) is approximately 100 µg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

CTA₂ is a stable analog of TXA₂. CTA₂ is a potent coronary vasoconstrictor and is effective at concentrations as low as 1 nM in cat coronary arteries.¹ Unlike other vascular TP receptor agonists, CTA₂ is a potent inhibitor of prostanoid-induced platelet aggregation. It inhibits arachidonic acid-induced aggregation with an IC₅₀ value of 4-5 µM. CTA₂ also exhibits selective and dose-dependent inhibition of TXB₂ synthesis in rabbit platelets at concentrations between 1 and 100 µM.¹

Reference

1. Lefer, A.M., Smith, E.F., III, Araki, H., *et al.* Dissociation of vasoconstrictor and platelet aggregatory activities of thromboxane by carbocyclic thromboxane A₂, a stable analog of thromboxane A₂. *Proc. Natl. Acad. Sci. USA* **77**(3), 1706-1710 (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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