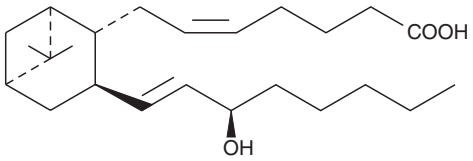
PRODUCT INFORMATION

15(R)-Pinane Thromboxane A_2

Item No. 10008510

CAS Registry No.: 71154-83-1
Formal Name: (5Z)-7-[(1S,2R,3R,5S)-3-[(1E,3R)-3-hydroxy-1-octen-1-yl]-6,6-dimethylbicyclo[3.1.1]hept-2-yl]-5-heptenoic acid
Synonyms: 15-*epi*-Pinane Thromboxane A_2, 15-*iso*-Pinane Thromboxane A_2, 15(R)-PTA_2, 15-*epi*-PTA_2, 15-*iso*-PTA_2
MF: $C_{24}H_{40}O_3$
FW: 376.6
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

15(R)-Pinane thromboxane A_2 (15(R)-PTA_2) 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 15(R)-PTA_2 in these solvents is approximately 25 and 50 mg/ml, respectively.

If an organic solvent-free solution of 15(R)-PTA_2 is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 15(R)-PTA_2 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

15(R)-PTA_2 is the (R)-epimer of pinane thromboxane A_2 (PTA_2; Item No. 19020). 15(R)-PTA_2 does not inhibit collagen-induced platelet aggregation (IC_{50}s = 120-130 µM).[1] It does not affect gastric tone in isolated rat gastric fundus when used at concentrations of 0.5 or 1.5 µg/ml and is less effective than PTA_2 at inhibiting prostaglandin-induced contraction of isolated rat stomach muscle.[2]

References

1. Caton, M.P.L., Stuttle, K.A.J., Tuffin, D.P., *et al.* Comparative action of carbocyclic thromboxane A_2 stereoisomers on platelets. *Eur. J. Med. Chem.* **35(12)**, 1099-1107 (2000).
2. Bennett, A. and Sanger, G.J. Pinane thromboxane A_2 analogues are non-selective prostanoid antagonists in rat and human stomach muscle. *Br. J. Pharmacol.* **77(4)**, 591-596 (1982).

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