Thromboxane B₃
Catalog No. 19990

CAS Registry No: 71953-80-5
Formal Name: 9.alpha.,11,15S-trihydroxy-thromboxane B₂
Synonyms: Δ¹⁷-Thromboxane B₂

MF: C₂₀H₃₂O₆
FW: 368.5
Purity: ≥ 98%
Stability: ≥ 2 years at -20°C
Supplied as: A solution in methyl acetate

Laboratory Procedures

Thromboxane B₃ (TXB₃) is a stable product of TXA₃ via the cyclooxygenase metabolism of eicosapentaenoic acid (EPA). For long term storage, we suggest that TXB₃ be stored as supplied at -20°C. It will be stable for at least two years.

TXB₃ 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 DMSO, dimethyl formamide, or ethanol purged with an inert gas can be used. The solubility of TXB₃ in these solvents is approximately 25 mg/ml. TXB₃ will be stable in these solvents for at least 6 months if stored at -20°C.

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 TXB₃ is needed, the methyl acetate can be evaporated under a stream of nitrogen and the neat oil dissolved in the buffer of choice. TXB₃ is soluble in PBS (pH 7.2) at a concentration of at least 100 µg/ml. We do not recommend storing the aqueous solution for more than one day.

TXB₃ is a cyclooxygenase product of eicosapentaenoic acid in various tissues such as seminal vesicles, lung, Polymorphonuclear leukocytes, and ocular tissues.¹,² TXB₃ and other 3-series cyclooxygenase products from EPA may be involved in the reduced incidence of glaucoma in patients on a marine-rich (EPA-rich) diet.²

References

WARNING: This product is not intended or approved for human or veterinary use. Use of this product for human or animal testing is extremely hazardous and may result in disease, severe injury, or death.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery. Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence. This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give such notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.