
Product Data Sheet

Product Name: 5-trans U-46619

Cat. No.: GC17719

Chemical Properties

Cas. No. 330796-58-2

Chemical Name 9,11-dideoxy-9 α ,11 α -methanoepoxy-prosta-5E,13E-dien-1-oic acidSMILES CCCC[C@H](O)/C=C/[C@H]1C2OCC(C2)[C@@H]1C/C=C/CCCC(O)=OFormula C₂₁H₃₄O₄ M.Wt 350.5Solubility \leq 100mg/ml in ethanol;100mg/ml in DMSO;100mg/ml in dimethyl formamide;2mg/ml in PBS(pH7.2) Store Storage at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

5-trans U-46619 is a minor impurity (2-5%) which variably exists in most commercial preparations of U-46619 [1]. U-46619 is a selective thromboxane A₂ agonist involved in inducing platelet aggregation and vascular smooth muscle contraction [2].

The biological activity of 5-trans U-46619 has been rarely tested separately from U-46619 itself. In the only case published to date, 5-trans U-46619 was found to be about half as potent an inhibitor of Prostaglandin E synthase as the 5-cis version of U-46619 [1]. Thromboxane A₂ (TxA₂) has been involved in the pathogenesis of airway hyperresponsiveness. TXA₂ is a type of thromboxane produced by activated platelets and shows prothrombotic properties. Thromboxane A₂ has also been known as a vasoconstrictor and is especially important during tissue injury and inflammation [3].

References:

Caution: Product has not been fully validated for medical applications. For research use only.

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- [1] Quraishi O, Mancini J A, Riendeau D. Inhibition of inducible prostaglandin E 2 synthase by 15-deoxy- Δ 12, 14-prostaglandin J 2 and polyunsaturated fatty acids[J]. *Biochemical pharmacology*, 2002, 63(6): 1183-1189.
- [2] Coleman, R. A.,Humphrey, P.P.A.,Kennedy, I., et al. Comparison of the actions of U-46619, a prostaglandin H2-analogue, with those of prostaglandin H2 and thromboxane A2 on some isolated smooth muscle preparations. *British Journal of Pharmacology* 73, 773-778 (1981).
- [3] Svensson J, Strandberg K, Tuvemo T, et al. Thromboxane A2: Effects of airway and vascular smooth muscle[J]. *Prostaglandins*, 1977, 14(3): 425-436.

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