

PRODUCT INFORMATION



U-46619

Item No. 16450

CAS Registry No.: 56985-40-1
Formal Name: (5Z)-7-[(1R,4S,5S,6R)-6-[(1E,3S)-3-hydroxy-1-octen-1-yl]-2-oxabicyclo[2.2.1]hept-5-yl]-5-heptenoic acid
Synonyms: 9,11-dideoxy-9 α ,11 α -methanoepoxy PGF_{2 α} , 9,11-dideoxy-9 α ,11 α -methanoepoxy Prostaglandin F_{2 α}

MF: C₂₁H₃₄O₄

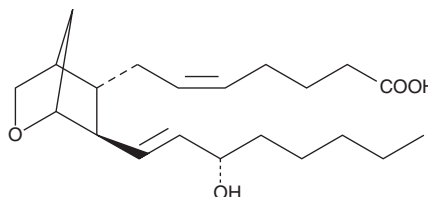
FW: 350.5

Purity: \geq 98%

Supplied as: A solution in methyl acetate

Storage: -20°C

Stability: \geq 2 years



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

Laboratory Procedures

U-46619 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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of U-46619 in these solvents is approximately 100 mg/ml.

U-46619 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of U-46619 should be diluted with the aqueous buffer of choice. The solubility of U-46619 in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

U-46619 is a stable analog of the endoperoxide prostaglandin H₂, and a TP receptor agonist.¹ It exhibits properties similar to thromboxane A₂, causing platelet shape change and aggregation, and contraction of vascular smooth muscle.^{2,3} Mean EC₅₀ values for shape change in human, rat, and rabbit platelets are 4.8, 6.0, and 7.3 nM respectively, and for aggregation are 82, 145, and 65 nM, respectively.⁴

References

1. Abramovitz, M., Adam, M., Boie, Y., *et al.* The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. *Biochim. Biophys. Acta* **1483**(2), 285-293 (2000).
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. *Br. J. Pharmacol.* **73**(3), 773-778 (1981).
3. Liel, N., Mais, D.E., and Halushka, P.V. Binding of a thromboxane A₂/prostaglandin H₂ agonist [3H] U46619 to washed human platelets. *Prostaglandins* **33**(6), 789-797 (1987).
4. Tymkewycz, P.M., Jones, R.L., Wilson, N.H., *et al.* Heterogeneity of thromboxane A₂ (TP-) receptors: Evidence from antagonist but not agonist potency measurements. *Br. J. Pharmacol.* **102**(3), 607-614 (1991).

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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