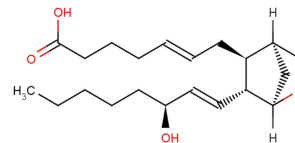


U-46619

Chemical Properties

| | |
|-------------------|--|
| CAS No.: | 56985-40-1 |
| Formula: | C ₂₁ H ₃₄ O ₄ |
| Molecular Weight: | 350.49 |
| Appearance: | N/A |
| Storage: | 0-4°C for short term (days to weeks), or -20°C for long term (months). |



Biological Description

| | |
|----------------------------|--|
| Description | U-46619 is a stable analog of thromboxane A ₂ and acts as an effective TXA ₂ agonist. |
| Targets(IC ₅₀) | TXA ₂ : None |
| In vitro | U-46619 improves the differentiation efficiency of human-induced pluripotent stem cells into endothelial cells by activating both p38MAPK and ERK1/2 signaling pathways. U-46619 (1 nM-10 μM) causes platelets to shape change and aggregation in a concentration-dependent manner (EC ₅₀ s: 0.58 μM and 0.013 μM for aggregation and shape change, respectively). U-46619 (3 nM-10 μM) also activates GTPase concentration-dependently in the membranes derived from platelets. U-46619 (10 nM-10 μM) increases internal Ca ²⁺ concentration and activates phosphoinositide (PI) hydrolysis in a concentration-dependent manner with a similar concentration-dependency [1][2]. |
| In vivo | In male spontaneously hypertensive rats, U-46619 (5 μg/kg; i.v.) enhances blood pressure [3]. |

Solubility Information

| | |
|------------|---|
| Solubility | < 1 mg/ml refers to the product slightly soluble or insoluble |
|------------|---|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|----------|-----------|-----------|
| 1 mM | 2.853 mL | 14.266 mL | 28.531 mL |
| 5 mM | 0.571 mL | 2.853 mL | 5.706 mL |
| 10 mM | 0.285 mL | 1.427 mL | 2.853 mL |
| 50 mM | 0.057 mL | 0.285 mL | 0.571 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Ohkubo S, et al. Thromboxane A₂-mediated shape change: independent of Gq-phospholipase C--Ca²⁺ pathway in rabbit platelets. *Br J Pharmacol*. 1996 Mar;117(6):1095-104.
2. Su L, et al. The prostaglandin H₂ analog U-46619 improves the differentiation efficiency of human induced pluripotent stem cells into endothelial cells by activating both p38MAPK and ERK1/2 signaling pathways. *Stem Cell Res Ther*. 2018 Nov 15;9(1):313.
3. Schirner M, et al. U 46619 induces different blood pressure effects in male and female spontaneously hypertensive rats (SHR). *Prostaglandins Leukot Essent Fatty Acids*. 1993 Jun;48(6):469-73.

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