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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

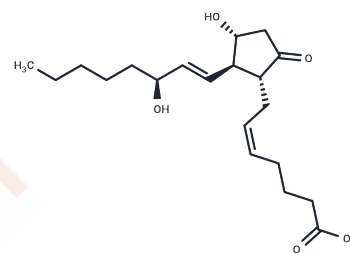
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Prostaglandin E2

Chemical Properties

CAS No. :	363-24-6
Formula:	C ₂₀ H ₃₂ O ₅
Molecular Weight:	352.47
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Prostaglandin E2 (PGE2) is a naturally occurring hormone involved in a variety of physiological processes in the body, including smooth muscle contraction and relaxation, regulation of vasodilatation and constriction, regulation of blood pressure, and inflammatory regulation.
Targets(IC50)	Endogenous Metabolite, Prostaglandin Receptor
In vitro	<p>METHODS: Human colorectal cancer cells LS-174T were treated with Prostaglandin E2 (0.05-10 μM) for 1-60 min, and the expression levels of target proteins were detected by Western Blot.</p> <p>RESULTS: Prostaglandin E2 induced phosphorylation of Akt as early as 1 min after stimulation, and the activation of Akt reached a maximum within 10 min and persisted until 60 min. The addition of Prostaglandin E2 activated Akt in a dose-dependent manner. [1]</p> <p>METHODS: FDC-like cells were treated with Prostaglandin E2 (1 μM) for 15-120 min, and the expression levels of target proteins were detected by Western Blot.</p> <p>RESULTS: Prostaglandin E2 did not increase p-ERK, but decreased p-ERK at 60 and 120 min. on the contrary, p-p38 increased starting at 15 min and continued to 60 min. [2]</p>
In vivo	<p>METHODS: To test the role of EP2 receptors in the in vivo absorption response, Prostaglandin E2 (3 mg/kg) was injected subcutaneously four times daily for three days into EP2+/+ and EP2-/- mice on a 129/SvEv background.</p> <p>RESULTS: Prostaglandin E2 increased serum calcium from 9.8\pm0.5 to 10.7\pm0.3 mg/dL in EP2+/+ mice but not in EP2-/- mice. [3]</p> <p>METHODS: To study the effects on bone, Prostaglandin E2 (6 mg/kg) was injected subcutaneously into C57BL/6 mice once daily for 3-12 days.</p> <p>RESULTS: Prostaglandin E2-treated mice showed a decrease in trabecular bone volume (BV/TV) at 14 days, indicating increased bone resorption. However, the Prostaglandin E2-treated 3-day group also stimulated bone formation at 14 days due to increased mineral deposition rate (MAR) and bone formation rate (BFR/BS). [4]</p>

Solubility Information

Solubility	DMSO: 50 mg/mL (141.86 mM), 5% DMSO+95% Saline: 1.5 mg/mL (4.26 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8371 mL	14.1856 mL	28.3712 mL
5 mM	0.5674 mL	2.8371 mL	5.6742 mL
10 mM	0.2837 mL	1.4186 mL	2.8371 mL
50 mM	0.0567 mL	0.2837 mL	0.5674 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Wang M, Wang X, Jiang B, et al. Identification of MRAP protein family as broad-spectrum GPCR modulators. Clinical and Translational Medicine. 2022, 12(11): e1091.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481