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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

www.szabo-scandic.com

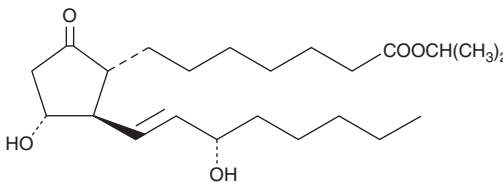
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PRODUCT INFORMATION



Prostaglandin E₁ isopropyl ester Item No. 9001729

CAS Registry No.: 217182-28-0
Formal Name: (11 α ,13E,15S)-11,15-dihydroxy-9-oxo-prost-13-en-1-oic acid, 1-methylethyl ester
Synonym: PGE₁ isopropyl ester
MF: C₂₃H₄₀O₅
FW: 396.6
Purity: \geq 95%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: \geq 1 year



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

Laboratory Procedures

Prostaglandin E₁ isopropyl ester is supplied as a solution in methyl acetate. To change the solvent, simply evaporate 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 prostaglandin E₁ isopropyl ester in these solvents is approximately 100, 2, and 75 mg/ml, respectively.

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 prostaglandin E₁ isopropyl ester is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of prostaglandin E₁ isopropyl ester in PBS, pH 7.2, is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Prostaglandin E₁ isopropyl ester is an ester prodrug form of prostaglandin E₁ (PGE₁; Item No. 13010) with enhanced lipid solubility.^{1,2} The ester functional group on PGE₁ isopropyl ester is readily hydrolyzed in cells and *in vivo* to release active PGE₁.¹ PGE₁ isopropyl ester exhibits a faster penetration flux than the free acid form of PGE₁ when applied topically to isolated mouse skin. Topical administration of PGE₁ isopropyl ester (1 mM) reduces fluid pressure within human dermal fibroblast cell aggregates.²

References

1. Ho, H.O., Hwang, M.C., Tseng, S.L., *et al.* The percutaneous penetration of prostaglandin E₁ and its alkyl esters. *J. Control Release* **58(3)**, 349-355 (1999).
2. Stuhr, L.E., Reith, A., Lepsøe, S., *et al.* Fluid pressure in human dermal fibroblast aggregates measured with micropipettes. *Am. J. Physiol. Cell Physiol.* **285(5)**, C1101-1108 (2003).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM