SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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

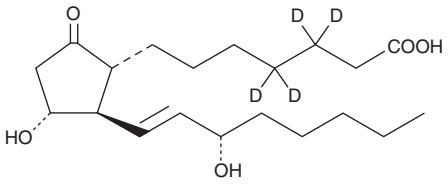
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Prostaglandin E_1-d_4

Item No. 313010

CAS Registry No.: 211105-33-8
Formal Name: 9-oxo-11α,15S-dihydroxy-prost-13E-en-1-oic-3,3,4,4-d_4 acid
Synonyms: Alprostadil-d_4, PGE_1-d_4
MF: $C_{20}H_{30}D_4O_5$
FW: 358.5
Chemical Purity: ≥99% Prostaglandin E_1
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_4); ≤1% d_0
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

Prostaglandin E_1-d_4 (PGE_1-d_4) contains four deuterium atoms at the 3, 3', 4, and 4' positions. It is intended for use as an internal standard for the quantification of PGE_1 by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that PGE_1-d_4 be stored as supplied at -20°C. It should be stable for at least one year.

PGE_1-d_4 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 PGE_1-d_4 in these solvents is approximately 50 mg/ml.

PGE_1-d_4 is used as an internal standard for the quantification of PGE_1 by stable isotope dilution MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the weight indicated on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard PGE_1 by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Description

PGE_1 is the theoretical cyclooxygenase metabolite of dihomo-γ-linolenic acid (DGLA), but it is virtually undetectable in the plasma of normal humans or other animals.[1] Its pharmacology includes vasodilation, hypotension, and anti-platelet activities. The IC_{50} value of PGE_1 for the inhibition of ADP-induced human platelet aggregation is 40 nM.[2,3] The vasorelaxant and anti-hypertensive effects of PGE_1 are used to treat male erectile dysfunction and to provide emergency vasodilation of the patent ductus arteriosus in infants whose cardiac anomalies require pulmonary shunting for survival.[4,5] In human males, the intracavernosal effective dose range for PGE_1 is 2 to 80 µg, and the transurethral range is 125 to 1,000 µg.[4]

References

1. Cawello, W., Schweer, H., Dietrich, B., *et al. J. Urol.* **158**, 1403-1407 (1997).
2. Kobzar, G., Mardla, V., Järving, I., *et al. Proc. Estonian Acad. Sci. Chem.* **40**, 179-180 (1991).
3. Okada, F., Nukada, T., Yamauchi, Y., *et al. Prostaglandins* **7**, 99-106 (1974).
4. Padma-Nathan, H., Hellstrom, W.J.G., Kaiser, F.E., *et al. N. Engl. J. Med.* **336**, 1-7 (1997).
5. Olley, P.M. and Coceani, F. *Annu. Rev. Med.* **32**, 375-3785 (1981).

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