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

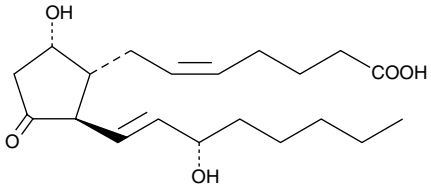
Product Information

Prostaglandin D_2 Quant-PAK

Item No. 10006843

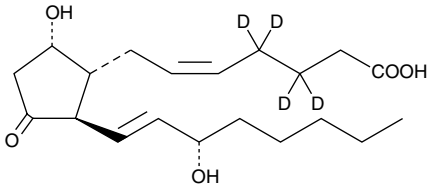
Prostaglandin D_2

CAS Registry No.: 41598-07-6
Formal Name: 9α,15S-dihydroxy-11-oxo-prosta-5Z,13E-dien-1-oic acid
Synonym: PGD_2
MF: $C_{20}H_{32}O_5$
FW: 352.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid



Prostaglandin D_2-d_4

CAS Registry No.: 211105-29-2
Formal Name: 9α,15S-dihydroxy-11-oxo-prosta-5Z,13E-dien-3,3,4,4-1-oic-d_4 acid
Synonym: PGD_2-d_4
MF: $C_{20}H_{28}D_4O_5$
FW: 356.5
Chemical Purity: ≥99% Prostaglandin D_2
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



This prostaglandin D_2 (PGD_2) Quant-PAK contains 50 µg of PGD_2-d_4 and 2-4 mg of PGD_2 (please see the vial for exact amount and concentration). For long term storage, we suggest that PGD_2 and PGD_2-d_4 be stored as supplied at -20°C. They will be stable for at least one year.

PGD_2 is supplied as a crystalline solid. A stock solution may be made by dissolving the PGD_2 in an organic solvent purged with an inert gas. PGD_2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PGD_2 in these solvents is 75, 50, and 100 mg/ml, respectively.

PGD_2-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 PGD_2-d_4 in these solvents is 75, 50, and 100 mg/ml, respectively.

PGD_2-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 PGD_2 by GC- or LC-mass spectrometry. The accuracy of the sample weight in the PGD_2-$d_4$vial is between 5% over and 2% under the weight indicated on the vial. For better precision we have provided a precisely weighed unlabeled PGD_2, with the precise weight (2-4 mg) indicated on the vial. Using this vial the deuterated standard can be quantified by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

PGD_2 is the major eicosanoid product of mast cells and is released in large quantities during allergic and asthmatic anaphylaxis.[1] Mastocytosis patients produce excessive amounts of PGD_2, which causes vasodilation, flushing, hypotension, and syncopal episodes.[1] PGD_2 is also produced in the brain *via* an alternative pathway involving a soluble, secreted PGD-synthase also known as β-trace.[2,3] In the brain, PGD_2 produces normal physiological sleep and lowering of body temperature.[2,3] Further pharmacological actions include inhibition of platelet aggregation and relaxation of vascular smooth muscle.[4] PGD_2 inhibits human ovarian tumor cell proliferation with an IC_{50} of 6.8 µM.[5]

References

1. Roberts, L.J., II and Sweetman, B.J. *Prostaglandins* **30**, 383-400 (1985).
2. Hayaishi, O. *J. Biol. Chem.* **263**, 14593-14596 (1988).
3. Onoe, H., Ueno, R., Fujita, I., *et al. Proc. Natl. Acad. Sci. USA* **85**, 4082-4086 (1988).
4. Giles, H. and Leff, P. *Prostaglandins* **35**, 277-300 (1988).
5. Kikuchi, Y., Kita, T., Hirata, J., *et al. Cancer. Metast. Rev.* **13**, 309-315 (1994).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10006843

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com