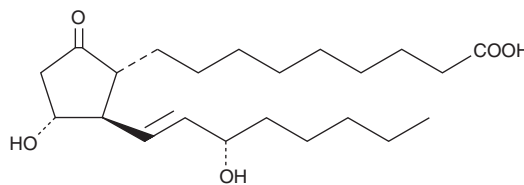


PRODUCT INFORMATION



1a,1b-dihomo Prostaglandin E₁ Item No. 13050

CAS Registry No.: 23452-98-4
Formal Name: [1R-[1 α ,2 β (1E,3S*),3 α]]-3-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxo-cyclopentanenonanoic acid
Synonym: 1a,1b-dihomo PGE₁
MF: C₂₂H₃₈O₅
FW: 382.5
Purity: \geq 98%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

1a,1b-dihomo Prostaglandin E₁ (PGE₁) 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 (DMF) purged with an inert gas can be used. The solubility of 1a,1b-dihomo PGE₁ in ethanol and DMSO is approximately 50 mg/ml and approximately 100 mg/ml in DMF.

1a,1b-dihomo PGE₁ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 1a,1b-dihomo PGE₁ should be diluted with the aqueous buffer of choice. The solubility of 1a,1b-dihomo PGE₁ in PBS (pH 7.2) is approximately 1.6 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PGE₁ is not a major naturally occurring PG, but is widely administered clinically for several indications including peripheral occlusive vascular disease, erectile dysfunction, and in neonatal cardiology.^{1,2} COX metabolism of the unusual fatty acid 10,13,16-docosatrienoic acid yields 1a,1b-dihomo PGE₁. This rare metabolite has been recovered from incubations of whole sheep seminal vesicles, but has not been reported in humans.³ In *ex vivo* preparations of rat aorta and rat PRP, 1a,1b-dihomo PGE₁ was found to be much less active than PGE₁ itself.⁴

References

1. Virag, R., Shoukry, K., Floresco, J., *et al.* Intracavernous self-injection of vasoactive drugs in the treatment of impotence: 8-Year experience with 615 cases. *J. Urol.* **145**(2), 287-293 (1991).
2. Hoshi, K. Approved indications of lipo-PGE₁ in Japan. *Adv. Drug Deliv. Rev.* **20**(2-3), 171-176 (1996).
3. Samel, N. and Maxey, K.M. Personal Communication. (2003).
4. Kloeze, J. Relationship between chemical structure and platelet-aggregation activity of prostaglandins. *Biochim. Biophys. Acta* **187**(3), 285-292 (1969).

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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