

PRODUCT INFORMATION



9-deoxy-9-methylene-16,16-dimethyl Prostaglandin E₂ (potassium salt)

Item No. 14430

CAS Registry No.: 122576-55-0

Formal Name: 9-methylene-11 α ,15R-dihydroxy-16,16-dimethyl-prosta-5Z,13E-dien-1-oic acid, monopotassium salt

Synonyms: Metenprost potassium, U-46785b

MF: C₂₃H₃₇O₄ • K

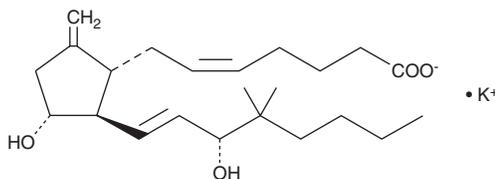
FW: 416.6

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

9-deoxy-9-methylene-16,16-dimethyl Prostaglandin E₂ (potassium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the 9-deoxy-9-methylene-16,16-dimethyl prostaglandin E₂ (potassium salt) in the solvent of choice, which should be purged with an inert gas. 9-deoxy-9-methylene-16,16-dimethyl Prostaglandin E₂ (potassium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 9-deoxy-9-methylene-16,16-dimethyl prostaglandin E₂ (potassium salt) in these solvents is approximately 50, 12.5, and 2 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. Organic solvent-free aqueous solutions of 9-deoxy-9-methylene-16,16-dimethyl prostaglandin E₂ (potassium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 9-deoxy-9-methylene-16,16-dimethyl prostaglandin E₂ (potassium salt) in PBS (pH 7.2) is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

9-deoxy-9-methylene-16,16-dimethyl Prostaglandin E₂ (metenprost) is a potent analog of PGE₂ with an extended half-life *in vivo*. In combination with various other PG derivatives, metenprost results in the termination of first trimester pregnancy in monkeys. A single intramuscular injection containing 0.5 mg of metenprost and 7.5 mg of 17-phenyl trinor PGF_{1 α} is very effective in terminating early pregnancy.¹ This PG mixture is ineffective on monkeys in their third trimester of pregnancy.¹ Metenprost, when compared to PGE₂ and PGF_{1 α} , in monkey and rat, does not result in unwanted side effects such as fever or gastrointestinal problems.^{1,2}

References

1. Wilks, J.W. Pregnancy interception with a combination of prostaglandins: Studies in monkeys. *Science* **221**(4618), 1407-1409 (1983).
2. Bundy, G.L., Kimball, F.A., Robert, A., *et al.* Synthesis and biological activity of 9-deoxo-9-methylene and related prostaglandins. *Adv. Prostaglandin Thromboxane Res.* **6**, 355-363 (1980).

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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