# PRODUCT INFORMATION



## 11-deoxy Prostaglandin E<sub>2</sub>

Item No. 14520

CAS Registry No.: 35536-53-9

Formal Name: 9-oxo-15S-hydroxy-prosta-5Z,13E-

dien-1-oic acid

Synonym: 11-deoxy PGE<sub>2</sub> MF:  $C_{20}H_{32}O_4$ 336.5 FW: **Purity:** ≥99%

Stability: ≥2 years at -20°C Supplied as: A crystalline solid

#### **Laboratory Procedures**

For long term storage, we suggest that 11-deoxy prostaglandin E2 (11-deoxy PGE2) be stored as supplied at -20°C. It should be stable for at least two years.

11-deoxy PGE<sub>2</sub> is supplied as a crystalline solid. A stock solution may be made by dissolving the 11-deoxy PGE<sub>2</sub> in an organic solvent purged with an inert gas. 11-deoxy PGE<sub>2</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 11-deoxy  $\overline{PGE}_2$  in these solvents is approximately 100 mg/ml. 11-deoxy PGE<sub>2</sub> will be stable for at least six months in these solvents if stored at -20°C.

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 11-deoxy PGE2 can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 11-deoxy PGE2 in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

#### Description

11-deoxy PGE<sub>2</sub> is a stable, synthetic analog of PGE<sub>2</sub> (Item No. 14010). In contrast to PGE<sub>2</sub> which has bronchodilation effects, 11-deoxy PGE2 is a powerful bronchoconstrictor and contracts human respiratory tract smooth muscle with potencies ranging from 5 to 30 times higher than  $PGF_{2a}$  (Item No. 16010).<sup>1</sup>

#### Reference

1. Karim, S.M.M., Adaikan, P.G., and Kottegoda, S.R. Prostaglandins and human respiratory tract smooth muscle: Structure activity relationship. Adv. Prostaglandin Thromboxane Res. 7, 969-980 (1980).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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