



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



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Laborgeräte & Service

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- Expressversand

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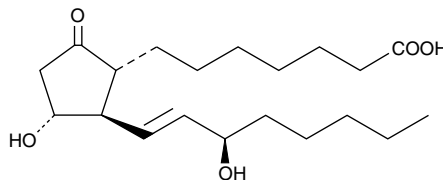
# Product Information



## 15(R)-Prostaglandin E<sub>1</sub>

Item No. 13710

**CAS Registry No.:** 20897-91-0  
**Formal Name:** 9-oxo-11 $\alpha$ ,15R-dihydroxy-prost-13E-en-1-oic acid  
**Synonym:** 15-*epi* Prostaglandin E<sub>1</sub>  
**MF:** C<sub>20</sub>H<sub>34</sub>O<sub>5</sub>  
**FW:** 354.5  
**Purity:**  $\geq$ 95%  
**Stability:**  $\geq$  1 year at -20°C  
**Supplied as:** A solution in methyl acetate



### Laboratory Procedures

For long term storage, we suggest that 15(R)-prostaglandin E<sub>1</sub> (15(R)-PGE<sub>1</sub>) be stored as supplied at -20°C. It will be stable for at least one year.

15(R)-PGE<sub>1</sub> 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 DMSO, dimethyl formamide, or ethanol purged with an inert gas can be used. The solubility of 15(R)-PGE<sub>1</sub> in these solvents is approximately 50 mg/ml. 15(R)-PGE<sub>1</sub> is 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 solutions of 15(R)-PGE<sub>1</sub> can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 15(R)-PGE<sub>1</sub> in PBS (pH 7.2) is approximately 1.6 mg/ml. Avoid adding 15(R)-PGE<sub>1</sub> to basic solutions (pH > 7.4) as base treatment will cause 15(R)-PGE<sub>1</sub> to undergo  $\beta$ -elimination to give the corresponding A and B prostaglandins. Store aqueous solutions of 15(R)-PGE<sub>1</sub> on ice and use within 12 hours. We strongly recommend using a fresh preparation each day.

15(R)-PGE<sub>1</sub> is the "unnatural" C-15 stereoisomer of PGE<sub>1</sub>.<sup>1</sup> It is essentially inactive biologically when compared to PGE<sub>1</sub>. 15(R)-PGE<sub>1</sub> is a non-competitive inhibitor of 15-hydroxyprostaglandin dehydrogenase with an IC<sub>50</sub> value of 189  $\mu$ M.<sup>2</sup>

### References

1. Nakano, J. Relationship between the chemical structure of prostaglandins and their vasoactivities in dogs. *Br. J. Pharmacol.* **44**, 63-70 (1972).
2. Jarabak, J. and Braithwaite, S.S. Kinetic studies on a 15-hydroxyprostaglandin dehydrogenase from human placenta. The reaction mechanism and the mechanism of action of various inhibitors. *Arch. Biochem. Biophys.* **177**, 245-254 (1976).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/13710](http://www.caymanchem.com/catalog/13710)

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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