

# Produktinformation



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# **Product Information**



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

Catalog No. 13910

CAS Registry No.: 64625-55-4

Formal Name: 9-oxo-11a,15S,19R-trihydroxy-prost-13E-

en-1-oic acid

Synonym: 19(R)-hydroxy PGE1

MF:  $C_{20}H_{34}O_{6}$ FW: 370.5 ≥95% **Purity:** 

Stability: ≥1 year at -20°C Supplied as: A solution in ethanol

## **Laboratory Procedures**

19(R)-hydroxy Prostaglandin E<sub>1</sub> (19(R)-OH PGE<sub>1</sub>) is the major prostaglandin found in the semen of primates, including man. For long term storage, we suggest that 19(R)-OH PGE<sub>1</sub> be stored as supplied at -20°C. It should be stable for at least one year.

19(R)-OH PGE<sub>1</sub> is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. The solubility of 19(R)-OH PGE<sub>1</sub> in these solvents is approximately 50 mg/ml.

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 19(R)-OH PGE<sub>1</sub> can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 19(R)-OH PGE<sub>1</sub> in PBS (pH 7.2) is approximately 1.7 mg/ml. Avoid adding 19(R)-OH PGE<sub>1</sub> to basic solutions (pH >7.4) as base treatment will cause 19(R)-OH PGE<sub>1</sub> to undergo β-elimination to give the corresponding A and B prostaglandins. Store aqueous solutions of 19(R)-OH PGE1 on ice and use within 12 hours. We strongly recommend using a fresh preparation each day.

19(R)-OH PGE<sub>1</sub> is a smooth muscle contractant. It is an agonist for the EP<sub>1</sub> and EP<sub>3</sub> receptor subtypes.<sup>1,2</sup> It has an EC<sub>50</sub> of 320 nM for contracting guinea pig ileum which exhibits EP<sub>1</sub> receptors and an EC<sub>50</sub> of 80 nM for contracting chick ileum which exhibits EP<sub>3</sub> receptors.<sup>2</sup>

### References

- 1. Kelly, R.W., Taylor, P.L., Hearn, J.P., et al. 19-Hydroxyprostaglandin E1 as a major component of the semen of primates. Nature 260, 544-545 (1976).
- Woodward, D.F., Protzman, C.E., Krauss, A.H.-P., et al. Identification of 19 (R)-OH prostaglandin E2 as a selective prostanoid EP<sub>2</sub>-receptor agonist. Prostaglandins 46, 371-383 (1993).

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

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

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