

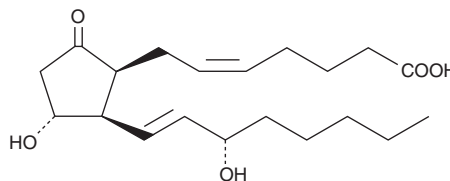
PRODUCT INFORMATION



8-iso Prostaglandin E₂

Item No. 14350

CAS Registry No.: 27415-25-4
Formal Name: (8β)-11α,15S-dihydroxy-9-oxo-prosta-5Z,13E-dien-1-oic acid
Synonyms: 8-iso PGE₂, 8-*epi* PGE₂
MF: C₂₀H₃₂O₅
FW: 352.5
Purity: ≥99%
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

8-iso Prostaglandin E₂ (8-iso PGE₂) is supplied as a crystalline solid. A stock solution may be made by dissolving the 8-iso PGE₂ in the solvent of choice, which should be purged with an inert gas. 8-iso PGE₂ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 8-iso PGE₂ in these solvents is approximately 100 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 aqueous solutions of 8-iso PGE₂ can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 8-iso 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

8-iso PGE₂ is one of several isoprostanes produced from arachidonic acid during lipid peroxidation.¹ It is a potent renal vasoconstrictor in the rat.^{1,2} 8-iso PGE₂ inhibits U-46619 or I-BOP-induced platelet aggregation with IC₅₀ values of 0.5 and 5 μM, respectively.³ When infused into the renal artery of the rat at a concentration of 4 μg/kg/min, 8-iso PGE₂ decreases the GFR and renal plasma flow by 80% without affecting blood pressure.¹

References

1. Morrow, J.D., Minton, T.A., Mukundan, C.R., *et al.* Free radical-induced generation of isoprostanes *in vivo*. Evidence for the formation of D-ring and E-ring isoprostanes. *J. Biol. Chem.* **269**(6), 4317-4326 (1994).
2. Hoffman, S.W., Moore, S., and Ellis, E.F. Isoprostanes: Free radical-generated prostaglandins with constrictor effects on cerebral arterioles. *Stroke* **28**(4), 844-84 (1997).
3. Longmire, A.W., Roberts, L.J., and Morrow, J.D. Actions of the E₂-isoprostane, 8-iso-PGE₂, on the platelet thromboxane/endoperoxide receptor in humans and rats: Additional evidence for the existence of a unique isoprostane receptor. *Prostaglandins* **48**(4), 247-256 (1994).

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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