PRODUCT INFORMATION

5-trans Prostaglandin E₂
Item No. 14210

CAS Registry No.: 36150-00-2
Formal Name: 11α,15S-dihydroxy-9-oxo-prosta-5E,13E-dien-1-oic acid
Synonyms: trans-Dinoprostone, 5,6-trans PGE₂
MF: C₂₀H₃₂O₅
FW: 352.5
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

5-trans Prostaglandin E₂ (5-trans PGE₂) is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-trans PGE₂ in the solvent of choice, which should be purged with an inert gas. 5-trans PGE₂ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 5-trans 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 5-trans PGE₂ can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 5-trans 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

5-trans PGE₂ occurs naturally in some gorgonian corals and is a common impurity in commercial lots of PGE₁.¹ It is 18 times more potent than PGE₂ in activating adenylate cyclase in NCB-20 cell homogenates.²

5-trans PGE₂ accelerates fibrinolysis by enhancing plasminogen activation mediated by tissue-type plasminogen activator.³ It also inhibits platelet aggregation in human PRP with an IC₅₀ of 180 nM.⁴

References