Prostaglandin E₁ Alcohol
Item No. 13020

CAS Registry No.: 21562-57-2
Formal Name: 1,11α,15S-trihydroxy-prost-13E-en-9-one
Synonyms: 1-hydroxy Prostaglandin E₁, PGE₁ Alcohol
MF: C₂₀H₃₆O₄
FW: 340.5
Purity: ≥99%
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

Prostaglandin E₁ (PGE₁) alcohol is supplied as a crystalline solid. A stock solution may be made by dissolving the PGE₁ alcohol in the solvent of choice, which should be purged with an inert gas. PGE₁ alcohol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PGE₁ alcohol in ethanol and DMF is approximately 25 mg/ml and approximately 20 mg/ml in DMSO.

PGE₁ alcohol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PGE₁ alcohol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. PGE₁ alcohol has a solubility of approximately 1 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Prostaglandin E₁ (PGE₁) alcohol is a non-irritant bronchodilator, with relaxant activity on the human bronchial muscle in vitro, comparable to PGE₁ at concentrations of 0.01 to 10.0 µg/ml.¹ ² Asthmatics receiving single dose inhalation treatments reported significant but short-acting bronchodilation at doses of 10 and 30 µg.³ PGE₁ alcohol binds to the mouse recombinant EP₃ and EP₄ receptors with Kᵢ values of 330 and 190 nM, respectively.³

References