PRODUCT INFORMATION

Prostaglandin F2α (tromethamine salt)
Item No. 16020

CAS Registry No.: 38562-01-5
Formal Name: 9α,11α,15S-trihydroxy-prosta-5Z,13E-dien-1-0ic acid, tris(hydroxymethyl)aminomethane salt
Synonyms: Dinoprost, PGF2α
MF: C20H33O5 • C4H12NO3
FW: 475.6
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

Prostaglandin F2α (tromethamine salt) (PGF2α (tromethamine salt)) is supplied as a crystalline solid. A stock solution may be made by dissolving the PGF2α (tromethamine salt) in the solvent of choice, which should be purged with an inert gas. PGF2α (tromethamine salt) is soluble in organic solvents such as ethanol, acetone, acetonitrile, methanol, and DMSO. The solubility of PGF2α (tromethamine salt) in ethanol and DMSO is approximately 50 mg/ml, approximately 5 mg/ml in acetone and acetonitrile, and approximately 100 mg/ml in methanol.

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 PGF2α (tromethamine salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PGF2α (tromethamine salt) in PBS (pH 7.2) is approximately 25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PGF2α is a widely distributed prostaglandin occurring in many species.1-3 It causes contraction of vascular, bronchial, intestinal, and myometrial smooth muscle, and also exhibits potent luteolytic activity.2 PGF2α exhibits its receptor mediated physiological activity at 50-100 nM.2 Maximal ovine myometrial contraction can be achieved at 125 nM PGF2α in vitro.4

References