17-phenyl trinor Prostaglandin E$_2$

Item No. 14810

CAS Registry No: 38315-43-4
Formal Name: 9-oxo-11α,15S-dihydroxy-17-phenyl-18,19,20-trinor-prosta-5Z,13E-dien-1-oic acid
Synonym: 17-phenyl trinor PGE$_2$
MF: C$_{31}$H$_{30}$O$_3$
FW: 386.5
Purity: ≥ 98%
Stability: ≥ 2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures

For long term storage, we suggest that 17-phenyl trinor prostaglandin E$_2$ (17-phenyl trinor PGE$_2$) be stored as supplied at -20°C. It should be stable for at least two years.

17-phenyl trinor PGE$_2$ is supplied as a crystalline solid. Stock solutions of 17-phenyl trinor PGE$_2$ can be made by dissolving the crystalline compound in the solvent of choice. Solvents such as ethanol, DMSO, or dimethyl formamide purged with an inert gas can be used. The solubility of 17-phenyl trinor PGE$_2$ in these solvents is approximately 100 mg/ml. 17-phenyl trinor PGE$_2$ is stable for at least six months in these solvents if stored at -20°C.

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. If an organic solvent-free aqueous solution of 17-phenyl trinor PGE$_2$ is needed, it can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 17-phenyl trinor PGE$_2$ in PBS (pH 7.2) is approximately 0.8 mg/ml. Store aqueous solutions of 17-phenyl trinor PGE$_2$ on ice and use within 12 hours of preparation. Although the aqueous solutions of 17-phenyl trinor PGE$_2$ may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

17-phenyl trinor PGE$_2$ is an EP$_1$ and EP$_2$ receptor agonist. It causes contraction of the guinea pig ileum at a concentration of 11 μM. 17-phenyl trinor PGE$_2$ is slightly less potent than PGE$_2$ in stimulating gerbil colon and rat uterus. With an ED$_{50}$ value of 350 μg/kg, 17-phenyl trinor PGE$_2$ is 4.4 times more potent than PGE$_2$ as an antifertility agent in hamsters.

References


Related Product
Prostaglandin E$_2$ - Item No. 14010

MATERIAL SAFETY DATA

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, see the Material Safety Data Sheet, which has been sent via email to your institution.

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