Product Information

5-trans Prostaglandin E\textsubscript{2}

Item No. 14210

CAS Registry No: 36150-00-2
Formal Name: 9-oxo-11α,15S-dihydroxy-prosta-
5E,13E-dien-1-oic acid
Synonyms: trans-Dinoprostone; 5,6-trans PGE\textsubscript{2}
MF: C\textsubscript{20}H\textsubscript{32}O\textsubscript{5}
FW: 352.5
Purity: ≥ 98%
Stability: ≥ 2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures

For long term storage, we suggest that 5-trans PGE\textsubscript{2} be stored as supplied at -20°C. It should be stable for at least two years.

5-trans PGE\textsubscript{2} is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-trans PGE\textsubscript{2} in an organic solvent purged with an inert gas. 5-trans PGE\textsubscript{2} is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 5-trans PGE\textsubscript{2} in these solvents is approximately 100 mg/ml. 5-trans PGE\textsubscript{2} will be 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. Organic solvent-free aqueous solutions of 5-trans PGE\textsubscript{2} can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 5-trans PGE\textsubscript{2} in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

5-trans PGE\textsubscript{2} occurs naturally in some gorgonian corals and is a common impurity in commercial lots of PGE\textsubscript{2}.\textsuperscript{1} It is 18 times more potent than PGE\textsubscript{2} in activating adenylate cyclase in NCB-20 cell homogenates.\textsuperscript{2} 5-trans PGE\textsubscript{2} accelerates fibrinolysis by enhancing plasminogen activation mediated by tissue-type plasminogen activator.\textsuperscript{3} It also inhibits platelet aggregation in human PRP with an IC\textsubscript{50} of 180 nM.\textsuperscript{4}

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14210

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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, the user must review the complete Safety Data Sheet, which has been sent to your institution.

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