

PRODUCT INFORMATION



8-iso Misoprostol

Item No. 10047

Formal Name: 9-oxo-11 α ,16-dihydroxy-16-methyl-(8 β)-prost-13E-en-1-oic acid, methyl ester

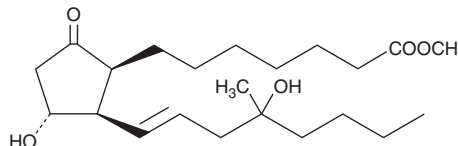
MF: C₂₂H₃₈O₅

FW: 382.5

Purity: \geq 98%

Stability: \geq 1 year at -20°C

Supplied as: A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that 8-iso misoprostol be stored as supplied at -20°C. It should be stable for at least one year.

8-iso Misoprostol is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 8-iso misoprostol in these solvents is approximately 50 and 100 mg/ml, respectively.

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 solution of 8-iso misoprostol is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 8-iso misoprostol in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Misoprostol is a widely sold analog of prostaglandin E₁ (PGE₁) which has potent but relatively non-selective agonist activity with respect to the prostanoid EP receptor subgroup.¹ Misoprostol has been used therapeutically for many years in humans for the treatment of gastric ulcer disease under the Searle tradename Cytotec.² 8-iso Misoprostol is one of several possible impurities in the production of bulk commercial preparations of misoprostol, and one that is somewhat difficult to distinguish from other impurities such as 11 β -misoprostol.³ The pharmacology and EP receptor binding affinity for 8-iso misoprostol has not been published.

References

1. Abramovitz, M., Adam, M., Boie, Y., *et al.* The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. *Biochim. Biophys. Acta* **1483**, 285-293 (2000).
2. Collins, P.W. Misoprostol: Discovery, development, and clinical applications. *Medicinal Research Reviews* **10**, 149-172 (1990).
3. Iyer, R.R., Personal communication (2003).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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