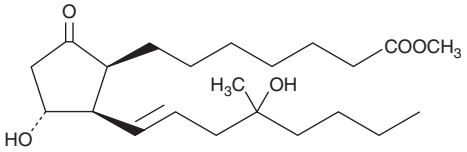
PRODUCT INFORMATION

8-*iso* Misoprostol

Item No. 10047

Formal Name:	9-oxo-11α,16-dihydroxy-16-methyl-(8β)-prost-13E-en-1-oic acid, methyl ester
MF:	$C_{22}H_{38}O_5$
FW:	382.5
Purity:	≥98%
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

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.

8-*iso* Misoprostol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 8-*iso* misoprostol should be diluted with the aqueous buffer of choice. 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 E_1 (PGE_1) 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 impurities which are possible in the production of bulk commercial preparations of misoprostol, and is somewhat difficult to distinguish from other impurities such as 11β-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(2)**, 285-293 (2000).
2. Collins, P.W. Misoprostol: Discovery, development, and clinical applications. *Med. Res. Rev.* **10(2)**, 149-172 (1990).
3. Iyer, R.R. Personal Communication. (2002).

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