

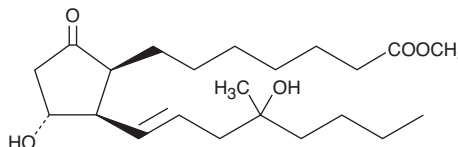
# Product Information



## 8-*iso* Misoprostol

Catalog No. 10047

**Formal Name:** 9-oxo-11 $\alpha$ ,16-dihydroxy-16-methyl-(8 $\beta$ )-prost-13E-en-1-oic acid, methyl ester  
**MF:** C<sub>22</sub>H<sub>38</sub>O<sub>5</sub>  
**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 will 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.

Misoprostol is a widely sold analog of prostaglandin E<sub>1</sub> (PGE<sub>1</sub>) which has potent but relatively non-selective agonist activity with respect to the prostanoid EP receptor subgroup.<sup>1</sup> Misoprostol has been used therapeutically for many years in humans for the treatment of gastric ulcer disease under the Searle tradename Cytotec.<sup>2</sup> 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 $\beta$ -misoprostol.<sup>3</sup> 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).

### Related Products

Misoprostol - Cat. No. 13820 • Misoprostol (free acid) - Cat. No. 13821 • 11 $\beta$ -Misoprostol - Cat. No. 13825

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**WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.**

#### MATERIAL SAFETY DATA

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