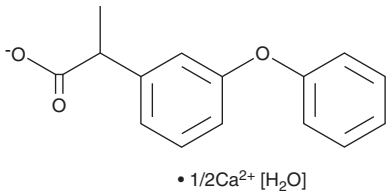
PRODUCT INFORMATION

Fenoprofen (calcium salt hydrate)

Item No. 23835

CAS Registry No.: 71720-56-4
Formal Name: α-methyl-3-phenoxy-benzeneacetic acid, calcium salt, dihydrate
MF: $C_{15}H_{13}O_3$ • 1/2Ca [H_2O]
FW: 279.3
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Fenoprofen (calcium salt hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the fenoprofen (calcium salt hydrate) in the solvent of choice. Fenoprofen (calcium salt hydrate) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of fenoprofen (calcium salt hydrate) in these solvents is approximately 33 mg/ml.

Fenoprofen (calcium salt hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, fenoprofen (calcium salt hydrate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Fenoprofen (calcium salt hydrate) has a solubility of approximately 0.11 mg/ml in a 1:8 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Fenoprofen is a non-steroidal anti-inflammatory drug (NSAID).[1] It inhibits spontaneous and estradiol-stimulated prostaglandin $F_{2\alpha}$ ($PGF_{2\alpha}$; Item No. 16010) release by 84% in isolated rat uterine horns when used at a concentration of 33 µM. Fenoprofen (10 mg/kg, i.p.) reduces serum $PGF_{2\alpha}$ levels in rats. It reduces acetic acid-induced writhing and stretching as well as formalin-induced licking behaviors, indicating analgesic activity, however, it also induces formation of gastric lesions in mice, a common adverse effect associated with NSAID administration.[2]

References

1. Patrono, C., Ciabattoni, G., and Grossi-Belloni, D. In vitro and in vivo inhibition of prostaglandin synthesis by fenoprofen, a non steroid anti-inflammatory drug. *Pharmacol. Res. Commun.* **6(5)**, 509-518 (1974).
2. Agotegaray, M., Gumilar, F., Boeris, M., *et al.* Enhanced analgesic properties and reduced ulcerogenic effect of a mononuclear copper(II) complex with fenoprofen in comparison to the parent drug: Promising insights in the treatment of chronic inflammatory diseases. *Biomed. Res. Int.* **505987** (2014).

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