

# PRODUCT INFORMATION



## Fenoprofen (calcium salt hydrate)

Item No. 23835

CAS Registry No.: 71720-56-4

Formal Name:  $\alpha$ -methyl-3-phenoxy-benzeneacetic acid, calcium salt, dihydrate

MF:  $C_{15}H_{13}O_3 \cdot 1/2Ca [H_2O]$

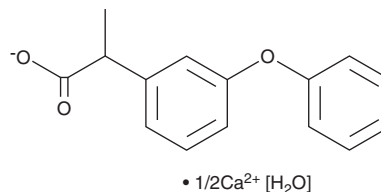
FW: 279.3

Purity:  $\geq 98\%$

Supplied as: A crystalline solid

Storage:  $-20^\circ C$

Stability:  $\geq 4$  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).<sup>1</sup> 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  $\mu M$ . Fenoprofen (10 mg/kg, i.p.) reduces serum  $PGF_{2\alpha}$  levels in rats. It reduces acetic acid-induced writhing and stretching and formalin-induced licking behaviors in mice, however, it also induces the formation of gastric lesions in mice.<sup>2</sup> Formulations containing fenoprofen have been used in the treatment of pain and the signs and symptoms of rheumatoid arthritis and osteoarthritis.

### 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).

#### 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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