

Certificate of Analysis

Print Date: May 29th 2019

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Product Name: Fenoprofen calcium Catalog No.: 6926 Batch No.: 1

CAS Number: 34597-40-5

IUPAC Name: α-Methyl-3-phenoxybenzeneacetic acid hemicalcium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₃O₃.0.5Ca.H₂O

Batch Molecular Weight: 279.33 **Physical Appearance:** White solid

Solubility: DMSO to 100 mM

ethanol to 50 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 64.5 5.41 Found 64.56 5.4



Product Information

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Description:

Melanocortin 3 (MC $_3$) receptor positive allosteric modulator (PAM; allosteric enhancer) (pEC $_{50}$ = 8.69); decreases the EC $_{50}$ of α -MSH at MC $_3$ R. Stimulates ERK1/2 activation at MC $_3$ -gR, with highest ERK1/2 activation observed at 3 and 10 μ M for MC $_3$ R, 1 μ M for MC $_4$ R, and 3 μ M for MC $_5$ R. Exhibits biased signaling at MC $_3$ -gR, selectively activating ERK1/2 cascade but not canonical cAMP signaling. Antiarthritic.

Physical and Chemical Properties:

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Batch Molecular Weight: 279.33 Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM ethanol to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Yuan et al (2019) Fenoprofen-an old drug rediscovered as a biased allosteric enhancer for melanocortin receptors. ACS Chem.Neurosci. 10 1066. PMID: 30168706.

Montero-Melendez et al (2017) Old drugs with new skills: fenoprofen as an allosteric enhancer at melanocortin receptor 3 Cell Mol.Life Sci. 74 1335. PMID: 27853832.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use