

Certificate of Analysis

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Product Name: Flufenamic acid

CAS Number: 530-78-9

IUPAC Name: 2-[[3-(Trifluoromethyl)phenyl]amino]benzoic acid

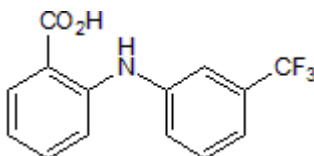
Catalog No.: 4522

Batch No.: 1

EC Number: 208-494-1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₀F₃NO₂
Batch Molecular Weight: 281.23
Physical Appearance: White solid
Solubility: DMSO to 100 mM
ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: At 135°C
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.79	3.58	4.98
Found	59.92	3.6	4.98

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

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Catalog No.: 4522

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Description:

Nonsteroidal anti-inflammatory drug (NSAID). Inhibits calcium-activated chloride channels (CaCCs). Also increases currents through TRPC6 channels and inhibits currents through TRPC3 and TRPC7 channels.

Physical and Chemical Properties:

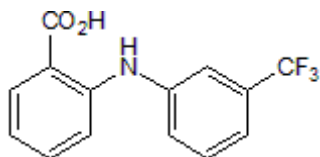
Batch Molecular Formula: C₁₄H₁₀F₃NO₂

Batch Molecular Weight: 281.23

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 100 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:

White and Aylwin (1990) Niflumic and flufenamic acids are potent reversible blockers of Ca²⁺-activated Cl⁻ channels in *Xenopus* oocytes. *Mol.Pharmacol.* **37** 720. PMID: 1692608.

Tu et al (2009) Diacylglycerol analogues activate second messenger-operated calcium channels exhibiting TRPC-like properties in cortical neurons. *J.Neurochem.* **108** 126. PMID: 19094061.

Foster et al (2009) Flufenamic acid is a tool for investigating TRPC6-mediated calcium signalling in human conditionally immortalised podocytes and HEK293 cells. *Cell Calcium* **45** 384. PMID: 19232718.

Chi et al (2011) Nonsteroidal anti-inflammatory drug flufenamic acid is a potent activator of AMP-activated protein kinase. *J.Pharmacol.Exp.Ther.* **339** 257. PMID: 21765041.

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