

Product Name: MONNA

Catalog No.: 5770

Batch No.: 1

CAS Number: 1572936-83-4

IUPAC Name: 2-[(4-Methoxy-2-naphthalenyl)amino]-5-nitro-benzoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₄N₂O₅·¼H₂O

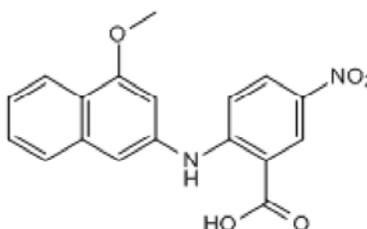
Batch Molecular Weight: 342.81

Physical Appearance: Orange solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.36 (Dichloromethane:Ethyl acetate [7:3])

HPLC: Shows 99.2% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	63.06	4.26	8.17
Found	63.43	3.97	7.99

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

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CAS Number: 1572936-83-4

IUPAC Name: 2-[(4-Methoxy-2-naphthalenyl)amino]-5-nitro-benzoic acid

Description:

MONNA is a potent TMEM16A (Anoctamin-1) blocker (IC₅₀ = 80 nM). Exhibits >100-fold selectivity for TMEM16A over bestrophin-1, CLC2 and CFTR. Induces vasorelaxation of rodent resistance arteries in presence or absence of chloride ions. Carbachol (Cat. No. 2810) induced contraction of bronchial myocytes is reduced by MONNA and intracellular calcium release is increased.

Physical and Chemical Properties:

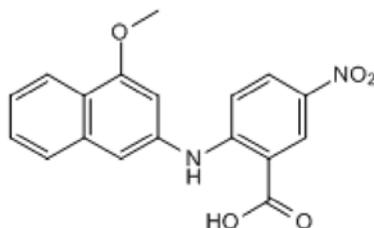
Batch Molecular Formula: C₁₈H₁₄N₂O₅·¼H₂O

Batch Molecular Weight: 342.81

Physical Appearance: Orange solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Dwivedi *et al* (2023) The TMEM16A blockers benzbromarone and MONNA cause intracellular Ca²⁺-release in mouse bronchial smooth muscle cells. *Eur.J.Pharmacol.* PMID: 36967079.

Boedtkjer *et al* (2015) New selective inhibitors of calcium-activated chloride channels - T16A(inh) -A01, CaCC(inh) -A01 and MONNA - what do they inhibit? *Br.J.Pharmacol.* **172** 4158. PMID: 26013995.

Oh *et al* (2013) MONNA, a potent and selective blocker for transmembrane protein with unknown function 16/anoctamin-1. *Mol.Pharmacol.* **84** 726. PMID: 23997117.

Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO 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.

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