

Certificate of Analysis

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: $C_{18}H_{14}N_2O_5 \cdot \frac{1}{4}H_2O$

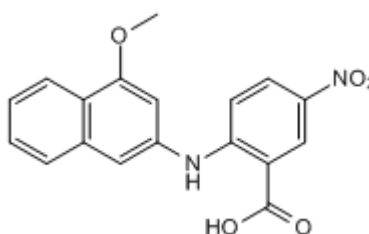
Batch Molecular Weight: 342.81

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 99.5% 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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Description:

Potent TMEM16A (Anoctamin-1) blocker ($IC_{50} = 80$ 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.

Physical and Chemical Properties:

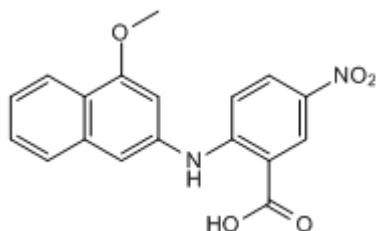
Batch Molecular Formula: $C_{18}H_{14}N_2O_5 \cdot \frac{1}{4}H_2O$

Batch Molecular Weight: 342.81

Physical Appearance: Orange solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

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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