

Certificate of Analysis

Product Name: SA 57

Catalog No.: 4752

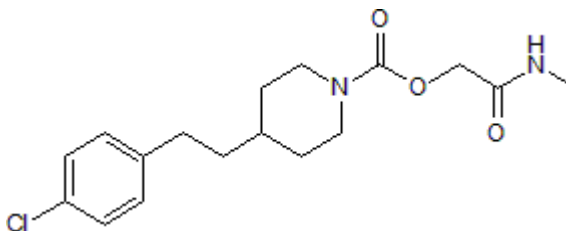
Batch No.: 1

CAS Number: 1346169-63-8

IUPAC Name: 4-[2-(4-Chlorophenyl)ethyl]-1-piperidinecarboxylic acid 2-(methylamino)-2-oxoethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₂₃ClN₂O₃
Batch Molecular Weight: 338.83
Physical Appearance: White solid
Solubility: DMSO to 25 mM
 ethanol to 20 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.29 (Ethyl acetate)
HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	60.26	6.84	8.27
Found	60.27	6.86	8.34

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

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IUPAC Name: 4-[2-(4-Chlorophenyl)ethyl]-1-piperidinecarboxylic acid 2-(methylamino)-2-oxoethyl ester

Description:

Potent inhibitor of fatty acid amide hydrolase (FAAH) ($IC_{50} < 10$ nM). Also inhibits MAGL at higher concentrations (IC_{50} values are 410 nM and 1.4 μ M respectively). Inhibits both human and mouse FAAH enzymes. Exhibits inhibitory activity against FAAH, MAGL and ABHD6 in vivo.

Physical and Chemical Properties:

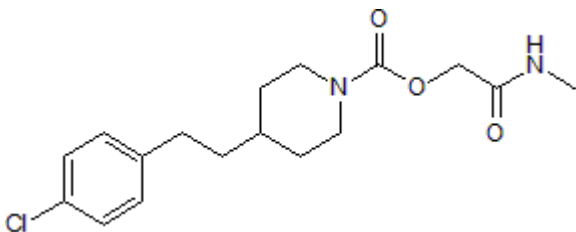
Batch Molecular Formula: $C_{17}H_{23}ClN_2O_3$

Batch Molecular Weight: 338.83

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Owens et al (2016) Discriminative stimulus properties of the endocannabinoid catabolic enzyme inhibitor SA-57 in mice. *J.Pharmacol.Exp.Ther.* PMID: 27307500.

Niphakis et al (2012) O-hydroxyacetamide carbamates as a highly potent and selective class of endocannabinoid hydrolase inhibitors. *ACS Chem.Neurosci.* **3** 418. PMID: 22860211.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 25 mM
ethanol to 20 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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