

Product Name: SM-21 maleate

Catalog No.: 0751

Batch No.: 3

CAS Number: 155059-42-0

IUPAC Name: (±)-Tropanyl 2-(4-chlorophenoxy)butanoate maleate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₂₄ClNO₃·C₄H₄O₄

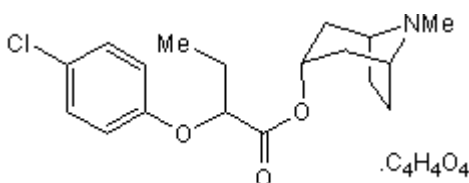
Batch Molecular Weight: 453.92

Physical Appearance: White solid

Solubility: water to 25 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Chloroform:Methanol [9:1])

Melting Point: Between 94 - 99°C

HPLC: Shows >99% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	58.21	6.22	3.08
Found	57.99	6.32	3.18

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

Product Name: SM-21 maleate

Catalog No.: 0751

Batch No.: 3

CAS Number: 155059-42-0

IUPAC Name: (±)-Tropanyl 2-(4-chlorophenoxy)butanoate maleate

Description:

Potent and selective σ_2 antagonist with central effects following systemic administration. Causes increased release of acetylcholine at central muscarinic synapses. Potent analgesic (efficacy comparable to morphine) and nootropic agent.

Physical and Chemical Properties:

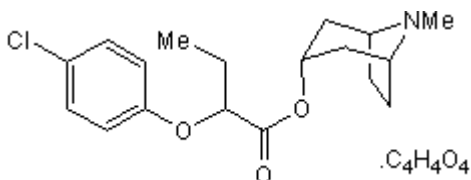
Batch Molecular Formula: C₁₈H₂₄ClNO₃·C₄H₄O₄

Batch Molecular Weight: 453.92

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 25 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:

Ghelardini et al (1997) Antinociceptive profile of 3- α -tropanyl-(2-Cl)-acid phenoxybutyrate (SM-21): a novel analgesic with a presynaptic cholinergic mechanism of action. *J.Pharmacol.Exp.Ther.* **282** 430. PMID: 9223584.

Ghelardini et al (2000) Pharmacological identification of SM-21, the novel σ_2 antagonist. *Pharmacol.Biochem.Behav.* **67** 659. PMID: 11164098.

Matsumoto and Mack (2001) (±)-SM 21 attenuates the convulsive and locomotor stimulatory effects of cocaine in mice. *Eur.J.Pharmacol.* **417** R1. PMID: 11301071.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956