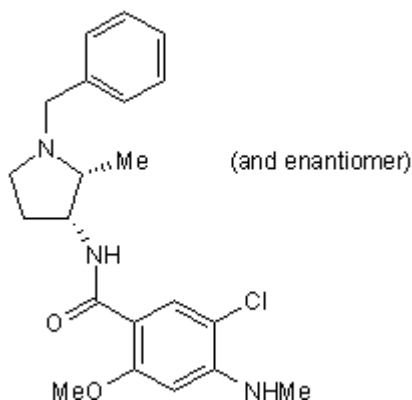


Certificate of Analysis

Product Name: Nemonapride **Catalog No.:** 1746 **Batch No.:** 2
CAS Number: 75272-39-8
IUPAC Name: *cis*-5-Chloro-2-methoxy-4-(methylamino)-*N*-[2-methyl-1-(phenylmethyl)-3-pyrrolidiny]benzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₂₆ClN₃O₂
Batch Molecular Weight: 387.91
Physical Appearance: White solid
Solubility: ethanol to 20 mM
DMSO to 25 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.3 (Ethyl acetate:Petroleum ether [1:1])
HPLC: Shows 99% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	65.02	6.76	10.83
Found	64.57	6.75	10.86

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

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Catalog No.: 1746

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IUPAC Name: *cis*-5-Chloro-2-methoxy-4-(methylamino)-*N*-[2-methyl-1-(phenylmethyl)-3-pyrrolidiny]benzamide

Description:

Highly potent dopamine D₂-like receptor antagonist; selective over D₁-like receptors (K_i values are 0.1 and 740 nM for D₂-like and D₁-like receptors respectively). Also potent 5-HT_{1A} receptor agonist (IC₅₀ = 34 nM) and has affinity for sigma receptors.

Physical and Chemical Properties:

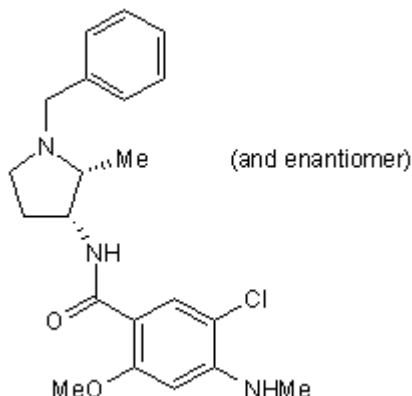
Batch Molecular Formula: C₂₁H₂₆ClN₃O₂

Batch Molecular Weight: 387.91

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Terai et al (1983) Selective binding of YM-09151-2, a new potent neuroleptic, to D₂-dopaminergic receptors. *Jpn.J.Pharmacol.* **33** 749. PMID: 6138453.

Ujike et al (1996) [³H]YM-09151-2 (nemonapride), a potent radioligand for both sigma₁ and sigma₂ receptor subtypes. *Neuroreport* **7** 1057. PMID: 8804051.

Assie et al (1997) 5-HT_{1A} receptor agonist properties of the antipsychotic, nemonapride: comparison with bromerguride and clozapine. *Eur.J.Pharmacol.* **334** 141. PMID: 9369342.

Storage: Store at RT

Solubility & Usage Info:

ethanol to 20 mM

DMSO 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.

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