

www.tocris.com

Print Date: Jan 15th 2016

Product Name: Domperidone Catalog No.: 2536 Batch No.: 1

CAS Number: 57808-66-9

a biotechne brand

IUPAC Name: 5-Chloro-1-[1-[3-(2,3-dihydro-2-oxo-1H-benzimidazol-1-yl)propyl]-4-piperidinyl]-1,3-dihydro-2H-benzimidazol-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

 $C_{22}H_{24}CIN_5O_2$ **Batch Molecular Formula:**

425.92 **Batch Molecular Weight:** White solid **Physical Appearance:**

Solubility: 1eq. HCl to 5 mM

DMSO to 100 mM ethanol to 5 mM

Store at RT Storage:

Batch Molecular Structure:

2. ANALYTICAL DATA

Melting Point: Between 244 - 246°C **HPLC:** Shows >99.5% purity ¹H NMR: Consistent with structure **Mass Spectrum:** Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 62.04 5.68 16.44 Found 61.93 5.74 16.4



Product Information

Print Date: Jan 15th 2016 **WWW.tocris.com**

Product Name: Domperidone Catalog No.: 2536 Batch No.: 1

CAS Number: 57808-66-9

IUPAC Name: 5-Chloro-1-[1-[3-(2,3-dihydro-2-oxo-1*H*-benzimidazol-1-yl)propyl]-4-piperidinyl]-1,3-dihydro-2*H*-benzimidazol-2-one

Description:

Peripheral dopamine D_2 -like receptor antagonist that does not readily cross the blood brain barrier. Displays gastroprokinetic and antiemetic properties; increases the frequency and duration of antral and duodenal contractions and protects from apomorphine-induced emesis (ED $_{50}$ values are 0.003 and 0.03 mg/kg for i.v. and oral administration respectively).

Physical and Chemical Properties:

Batch Molecular Formula: C₂₂H₂₄ClN₅O₂ Batch Molecular Weight: 425.92 Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:

1eq. HCl to 5 mM DMSO to 100 mM ethanol to 5 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:

Neimegeers *et al* (1980) The antiemetic effects of domperidone, a novel potent gastrokinetic. Arch.Int.Pharmacodyn.Ther. **244** 130. PMID: 7416883.

Prakash and Wagstaff (1998) Domperidone. A review of its use in diabetic gastropathy. Drugs 56 429. PMID: 9777316.

Osinski et al (2005) Dopamine D₂, but not D₄, receptor agonists are emetogenic in ferrets. Pharmacol.Biochem.Behav. 81 211. PMID: 15894081.