Certificate of Analysis

Product Name: **2-CMDO** **Catalog No.: 0782** **Batch No.: 1**

CAS Number: 24140-98-5

IUPAC Name: 2-Chloro-11-(4-methylpiperazino)dibenz(*Z*)[*b*,*f*]oxepin maleate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{19}H_{19}ClN_2O.C_4H_4O_4$

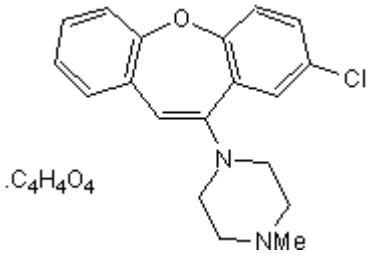
Batch Molecular Weight: 442.9

Physical Appearance: White crystalline solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.68 (Dichloromethane:Methanol [98:2])

Melting Point: Between 186 - 189°C

^{1}H NMR: Consistent with structure

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CAS Number: 24140-98-5

IUPAC Name: 2-Chloro-11-(4-methylpiperazino)dibenz(*Z*)[*b*,*f*]oxepin maleate

Description:

Dopamine D_2-like receptor antagonist that displays some selectivity for D_4 receptors (K_i values are 0.54 and 2.5 nM for D_4 and D_2 receptors respectively).

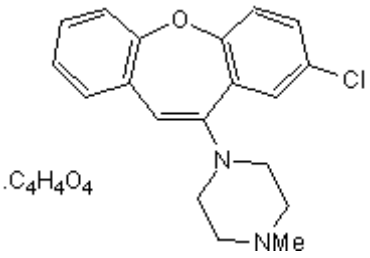
Physical and Chemical Properties:

Batch Molecular Formula: $C_{19}H_{19}ClN_2O.C_4H_4O_4$

Batch Molecular Weight: 442.9

Physical Appearance: White crystalline solid

Batch Molecular Structure:



Storage: Store at RT

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.

References:

Phillips *et al* (1994) Binding of 5*H*-dibenzo[*b*,*e*][1,4]diazepine and chiral 5*H*-dibenzo[*a*,*d*]cycloheptane analogues of clozapine to dopamine and serotonin receptors. J.Med.Chem. ***37*** 2686. PMID: 8064797.

Phillips *et al* (1995) Binding of 5*H*-dibenzo[*a*,*d*]cycloheptane and dibenz[*b*,*f*]oxapin analogues of clozapine to dopamine and serotonin receptors. J.Med.Chem. ***38*** 708. PMID: 7861418.

Zawilska *et al* (2003) L-745,870 suppresses the nighttime serotonin N-acetyltransferase activity in chick retina: in vivo evidence for agonist activity at D_4-dopamine receptors. J.Neural Transm. ***110*** 219. PMID: 12658371.

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