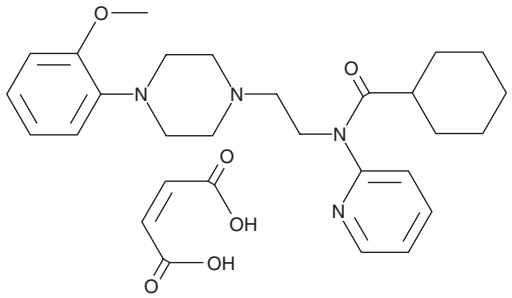
PRODUCT INFORMATION

WAY-100635 (maleate)

Item No. 14599

CAS Registry No.:	1092679-51-0
Formal Name:	N-[2-[4-(2-methoxyphenyl)-1-piperazinyl]ethyl]-N-2-pyridinyl-cyclohexanecarboxamide, 2Z-butenedioate
MF:	$C_{25}H_{34}N_4O_2 \bullet C_4H_4O_4$
FW:	538.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 271 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

WAY-100635 (maleate) is supplied as a crystalline solid. A stock solution may be made by dissolving the WAY-100635 (maleate) in the solvent of choice, which should be purged with an inert gas. WAY-100635 (maleate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of WAY-100635 (maleate) in these solvents is approximately 10,15, and 25 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of WAY-100635 (maleate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of WAY-100635 (maleate) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

WAY-100635 is a potent, silent antagonist of serotonin 5-HT_{1A} receptors with an IC_{50} value of 2.2 nM (K_i = 0.8 nM) for inhibiting 5-HT_{1A} receptors in rat hippocampal membranes.[1,2] Because it displays 100-fold selectivity for 5-HT_{1A} over other 5-HT subtypes, WAY-100635 is classically used to examine the distribution and function of 5-HT_{1A} receptors.[3] However, WAY-100635 has also been shown to exhibit agonist activity at dopamine D_4 receptors (K_d = 2.4 nM).[4]

References

1. Zhuang, Z.P., Kung, M.P., and Kung, H.F. Synthesis and evaluation of 4-(2'-methoxyphenyl)-1-[2'-[N-(2"-pyridinyl)-p-iodobenzamido]ethyl]piperazine (p-MPPI): A new iodinated 5-HT1A ligand. *J. Med. Chem.* **37(10)**, 1406-1407 (1994).
2. Mensonides-Harsema, M.M., Liao, Y., Böttcher, H., *et al.* Synthesis and in vitro and in vivo functional studies of ortho-substituted phenylpiperazine and N-substituted 4-N-(o-methoxyphenyl)aminopiperidine analogues of WAY100635. *J. Med. Chem.* **43(3)**, 432-439 (2000).
3. Forster, E.A., Cliffe, I.A., Bill, D.J., *et al.* A pharmacological profile of the selective silent 5-HT_{1A} receptor antagonist, WAY-100635. *Eur. J. Pharmacol.* **281(1)**, 81-88 (1995).
4. Chemel, B.R., Roth, B.L., Armbruster, B., *et al.* WAY-100635 is a potent dopamine D_4 receptor agonist. *Psychopharmacology (Berl)* **188(2)**, 244-251 (2006).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM