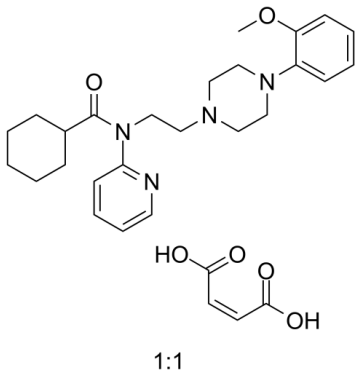
Data Sheet

Product Name:	WAY-100635 Maleate
Cat. No.:	CS-0019684
CAS No.:	1092679-51-0
Molecular Formula:	C29H38N4O6
Molecular Weight:	538.64
Target:	5-HT Receptor; Dopamine Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	H2O : 25 mg/mL (46.41 mM; Need ultrasonic); DMSO : ≥ 250 mg/mL (464.13 mM)



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BIOLOGICAL ACTIVITY:

WAY-100635 maleate is a potent and selective **5-hydroxytryptamine 1A (5-HT1A) receptor** antagonist with an **IC_{50}** value of 0.91 nM and **K_i** value of 0.39 nM. WAY-100635 maleate has **pIC_{50}** values for **5-HT1A** and α1-adrenergic receptors of 8.9 and 6.6, respectively. WAY-100635 maleate is also a potent **dopamine D_4 receptor** agonist[1][2][3]. IC50 & Target: pIC50 Value: 8.87 (5-HT_{1A} Receptor)[1]. **In Vitro:** The functional properties and binding affinities of WAY-100635 are evaluated in HEK 293 cells stably expressing dopamine D_{2L} or $D_{4.4}$ receptors[1].

WAY-100635 displays 940, 370, and 16 nM binding affinities at D_{2L}, D_3, and $D_{4.2}$ receptors, respectively. Saturation analyses demonstrat that the **K_d** of [^{3}H] WAY-100635 at $D_{4.2}$ receptors is 2.4 nM. WAY-100635 is potent agonist in HEK-$D_{4.4}$ cells with **EC_{50}** of 9.7 nM. WAY-100635 possesses high affinity for $D_{4.4}$ receptor (3.3 nM) [1]. **In Vivo:** WAY-100635 (1 mg/kg; subcutaneous injection; male Sprague-Dawley rats) treatment abolishes the reduction of the severity of abstinence signs induced by Rhodiola rosea administration in nicotine-dependent rat[2].

References:

[1]. Chemel BR, et al. WAY-100635 is a potent dopamine D4 receptor agonist. Psychopharmacology (Berl). 2006 Oct;188(2):244-51.

[2]. Mannucci C, et al. Serotonin involvement in Rhodiola rosea attenuation of nicotine withdrawal signs in rats. Phytomedicine. 2012 Sep 15;19(12):1117-24.

[3]. Al Hussainy R, et al. Design, synthesis, radiolabeling, and in vitro and in vivo evaluation of bridgehead iodinatedanalogues of N-<2-[4-(2-methoxyphenyl)piperazin-1-yl]ethyl>-N-(pyridin-2-yl)cyclohexanecarboxamide (WAY-100635) as potential SPECT ligands for the 5-HT1A receptor. J Med Chem. 2011 May 26;54(10):3480-91.

CAIndexNames:

Cyclohexanecarboxamide, N-[2-[4-(2-methoxyphenyl)-1-piperazinyl]ethyl]-N-2-pyridinyl-, (2Z)-2-butenedioate (1:1)

SMILES:

O=C(O)/C=C\C(O)=O.O=C(N(C1=NC=CC=C1)CCN2CCN(CC2)C3=CC=CC=C3OC)C4CCCCC4.[1:1]

Caution: Product has not been fully validated for medical applications. For research use only.

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