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## Product Data Sheet

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Product Name: (S)-WAY 100135 dihydrochloride

Cat. No.: GC14805

### Chemical Properties

Cas. No. 149007-54-5

Chemical Name (S,Z)-N-(tert-butyl)-3-(4-(2-methoxyphenyl)piperazin-1-yl)-2-phenylpropanimidic acid dihydrochloride

SMILES CC(C)(/N=C(O)/[C@](C1=CC=CC=C1)([H])CN2CCN(C3=CC=CC=C3OC)CC2)C.Cl.Cl

Formula  $C_{24}H_{33}N_3O_2 \cdot 2HCl$  M.Wt 468.47

Solubility <46.85mg/ml in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

### Background

(S)-WAY 100135 dihydrochloride is a potent and selective antagonist of 5-HT<sub>1A</sub> receptor with IC<sub>50</sub> value of 15 nM.

The 5-HT<sub>1A</sub> receptor is a G protein-coupled receptor for endogenous neurotransmitter serotonin (5-HT) and mediates inhibitory neurotransmission.

(S)-WAY 100135 dihydrochloride is a potent and selective somatodendritic and postsynaptic 5-HT<sub>1A</sub> receptors antagonist. (+/-)-WAY100135 inhibited 5-HT<sub>1A</sub> receptor in the rat hippocampal with IC<sub>50</sub> value of 34 nM [1].

In the murine elevated plus-maze test, (S)-WAY 100135 (10 mg/kg) exhibited anxiolytic-like effects [2]. In free feeding rats, WAY-100135 (3 mg/kg) significantly inhibited hyperphagia and the increased incidence of feeding induced by 8-OH-DPAT (0.1 mg/kg), which was mediated by somatodendritic 5-HT<sub>1A</sub> autoreceptor [3]. In rats, (S)-WAY

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

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100135 (0.2, 1, 5 ug/ul) inhibited the impairment of choice accuracy induced by intrahippocampal scopolamine (3.75 ug/ul) in a dose-dependent way. However, (S)-WAY 100135 didn't influence the acquisition of spatial learning [4]. In rats, WAY-100135 (10.0 mg/kg) inhibited the decrease of 5-HT release induced by buspirone, a 5-HT<sub>1A</sub> receptor partial agonist [5].

### References:

- [1]. Fletcher A, Bill DJ, Bill SJ, et al. WAY100135: a novel, selective antagonist at presynaptic and postsynaptic 5-HT<sub>1A</sub> receptors. *Eur J Pharmacol*, 1993, 237(2-3): 283-291.
- [2]. Rodgers RJ, Cole JC. Anxiolytic-like effect of (S)-WAY 100135, a 5-HT<sub>1A</sub> receptor antagonist, in the murine elevated plus-maze test. *Eur J Pharmacol*, 1994, 261(3): 321-325.
- [3]. Hartley JE, Fletcher A. The effects of WAY-100135 and 8-hydroxy-2-(di-n-propylamino)tetralin on feeding in the rat. *Eur J Pharmacol*, 1994, 252(3): 329-332.
- [4]. Carli M, Luschi R, Samanin R. (S)-WAY 100135, a 5-HT<sub>1A</sub> receptor antagonist, prevents the impairment of spatial learning caused by intrahippocampal scopolamine. *Eur J Pharmacol*, 1995, 283(1-3): 133-139.
- [5]. Routledge C, Gurling J, Ashworth-Preece MA, et al. Differential effects of WAY-100135 on the decrease in 5-hydroxytryptamine release induced by buspirone and NAN-190. *Eur J Pharmacol*, 1995, 276(3): 281-284.

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