Product Data Sheet

Product Name: BW 723C86 hydrochloride
Cat. No.: GC11231

Chemical Properties

Cas. No.	160521-72-2		
Chemical Name	(R)-1-(5-(thiophen-2-ylmethoxy)-1H-indol-3-yl)propan-2-amine hydrochloride		
SMILES	N[C@H](C)CC(C1=C2)=CNC1=CC=C2OCC3=CC=CS3.Cl		
Formula	$C_{16}H_{18}N_2OS.HCl$	M.Wt	322.85
Solubility	DMF: >55 mg/ml,DMSO: >52 mg/ml,Ethanol: >6 mg/ml,PBS pH 7.2: >160 μ g/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	BW 723C86 hydrochloride		

Background

BW 723C86 hydrochloride is a selective agonist of 5-HT2B receptor [1].

The 5-HT2B receptor is a G protein-coupled receptor for endogenous neurotransmitter serotonin (5-HT) and plays an important role in shape changes in platelets, contraction of blood vessels and neuronal sensitization to tactile stimuli.

BW 723C86 hydrochloride is a selective 5-HT2B receptor agonist. BW723C86 reversibly increased both the amplitude and frequency of miniature excitatory postsynaptic currents (mEPSCs) in cardiac vagal neurons (CVNs), which were blocked by P2 receptor antagonist PPADS. And BW723C86 facilitated excitatory purinergic neurotransmission to CVNs via P2X receptor [2].

In a rat social interaction test, BW 723C86 (3 or 10 mg/kg) increased total interaction and induced an anxiolytic-like action, which was mediated by 5-HT2B receptor [1]. In a

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rat Vogel conflict test, BW 723C86 (10 or 30 mg/kg) increased the number of punishments, which were mediated by 5-HT2B receptor and were consistent with its anxiolytic-like properties [3]. In a neuropathic pain rat model, BW723C86 significantly inhibited mechanical allodynia and cold allodynia in a dose-dependent way [4].

References:

[1]. Kennett GA, Bright F, Trail B, et al. Effects of the 5-HT2B receptor agonist, BW 723C86, on three rat models of anxiety. Br J Pharmacol, 1996, 117(7): 1443-1448.
[2]. Dergacheva O, Wang X, Kamendi H, et al. 5HT2 receptor activation facilitates P2X receptor mediated excitatory neurotransmission to cardiac vagal neurons in the nucleus ambiguus. Neuropharmacology, 2008, 54(7): 1095-1102.
[3]. Kennett GA, Trail B, Bright F. Anxiolytic-like actions of BW 723C86 in the rat Vogel conflict test are 5-HT2B receptor mediated. Neuropharmacology, 1998, 37(12): 1603-1610.
[4]. Urtikova N, Berson N, Van Steenwinckel J, et al. Antinociceptive effect of peripheral serotonin 5-HT2B receptor activation on neuropathic pain. Pain, 2012, 153(6): 1320-1331.