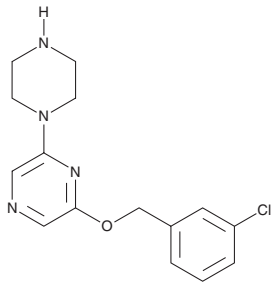
PRODUCT INFORMATION

CP 809,101

Item No. 24214

CAS Registry No.:	479683-64-2
Formal Name:	2-[(3-chlorophenyl)methoxy]-6-(1-piperazinyl)-pyrazine
MF:	$C_{15}H_{17}ClN_4O$
FW:	304.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 249, 329 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

CP 809,101 is supplied as a crystalline solid. A stock solution may be made by dissolving the CP 809,101 in the solvent of choice. CP 809,101 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of CP 809,101 in ethanol is approximately 2 mg/ml and approximately 20 mg/ml in DMSO and DMF.

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 CP 809,101 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of CP 809,101 in PBS, pH 7.2, is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

CP 809,101 is a potent agonist of the serotonin (5-HT) receptor subtype 5-HT_{2C}.[1] It is selective for human 5-HT_{2C} and rat 5-HT_{2C} over human 5-HT_{2A}, 5-HT_{2B}, and rat 5-HT_{2A} receptors in a FLIPR membrane potential assay (EC_{50}s = 0.11, 0.06, 153, 65.3, and 119 nM, respectively) as well as human dopamine D_2, histamine H_1, and α_1- and α_2-adrenergic receptors (K_is = 872, 828, 217, and 956 nM, respectively). CP 809,101 inhibits the conditioned avoidance response, hyperactivity induced by PCP and D-amphetamine, and spontaneous locomotor activity in rats (ED_{50}s = 4.8, 2.4, 2.9, and 2 mg/kg, respectively). It reduces prepulse inhibition deficits induced by apomorphine and improves novel object recognition in mice. CP 809,101 (0.01-1 µg/0.2 µl/side) reduces reinstatement of drug-seeking behavior in cocaine-primed rats when administered into the central amygdala but not the basolateral amygdala.[2] It also reduces reinstatement of food-seeking behavior in a rat model of dietary relapse.[3]

References

1. Xiang, Z., Pogozheva, I.D., Sorenson, N.B., *et al*. *Biochemistry* **46(28)**, 8273-8287 (2007).
2. Hamberg, M. and Gotthammar, B. *Lipids* **8(12)**, 733-744 (1973).
3. Kaminsky, Y.G., Marlatt, M.W., Smith, M.A., *et al. Exp. Neurol*. **221(1)**, 26-37 (2010).

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