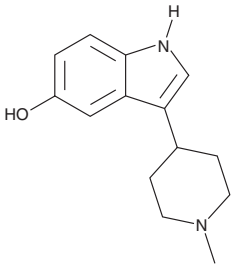
PRODUCT INFORMATION

BRL 54443

Item No. 21263

CAS Registry No.:	57477-39-1
Formal Name:	3-(1-methyl-4-piperidinyl)-1H-indol-5-ol
MF:	$C_{14}H_{18}N_2O$
FW:	230.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 278 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

BRL 54443 is supplied as a crystalline solid. A stock solution may be made by dissolving the BRL 54443 in the solvent of choice, which should be purged with an inert gas. BRL 54443 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of BRL 54443 in these solvents is approximately 1.4, 30, and 12.5 mg/ml, respectively.

BRL 54443 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BRL 54443 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BRL 54443 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BRL 54443 is a potent agonist of the serotonin (5-HT) receptor subtypes 5-HT_{1E} and 5-HT_{1F} (K_i values are 1.1 and 0.7 nM, respectively).[1] It displays more than 30-fold selectivity over other 5-HT and dopamine receptors. At higher concentrations, BRL 54443 induces 5-HT_{2A}-mediated contraction of mouse thoracic aorta strips *in vitro* (pEC_{50} = 6.5).[2] It significantly reduces formalin-induced pain in rat hind paw.[3]

References

1. Klein, M.T., Dukat, M., Glennon, R.A., *et al.* Toward selective drug development for the human 5-hydroxytryptamine 1E receptor: A comparison of 5-hydroxytryptamine 1E and 1F receptor structure-affinity relationships. *J. Pharmacol. Exp. Ther.* **337(3)**, 860-867 (2011).
2. McKune, C.M. and Watts, S.W. Characterization of the serotonin receptor mediating contraction in the mouse thoracic aorta and signal pathway coupling. *J. Pharmacol. Exp. Ther.* **297(1)**, 88-95 (2001).
3. Granados-Soto, V., Argüelles, C.F., Rocha-González, H.I., *et al.* The role of peripheral 5-HT1A, 5-HT1B, 5-HT1D, 5-HT1E and 5-HT1F serotonergic receptors in the reduction of nociception in rats. *Neuroscience* **165(2)**, 561-568 (2010).

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