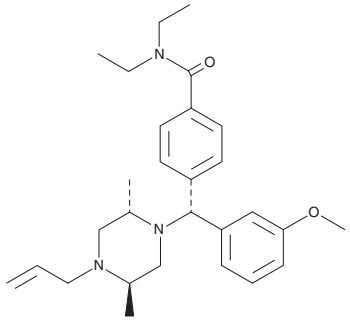
PRODUCT INFORMATION

SNC 80

Item No. 15599

CAS Registry No.:	156727-74-1
Formal Name:	4-[(R)-[(2S,5R)-2,5-dimethyl-4-(2-propen-1-yl)-1-piperazinyl](3-methoxyphenyl)methyl]-N,N-diethyl-benzamide
Synonym:	NIH 10815
MF:	$C_{28}H_{39}N_3O_2$
FW:	449.6
Purity:	≥98%
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

SNC 80 is supplied as a crystalline solid. A stock solution may be made by dissolving the SNC 80 in the solvent of choice, which should be purged with an inert gas. SNC 80 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of SNC 80 in these solvents is approximately 0.1 mg/ml.

Description

SNC 80 is a selective nonpeptide agonist of the δ-opioid receptor (K_i = 0.18 nM, IC_{50} = 2.73 nM) that is over 2,000-fold less effective at the μ-opioid receptor.[1-3] It effectively activates μ/δ receptor heteromers (EC_{50} = 52.8 nM) but not κ/δ or μ/κ heteromers.[4] SNC 80 has antinociceptive as well as pro-convulsant effects *in vivo*.[1,2,5]

References

1. Bilsky, E.J., Calderon, S.N., Wang, T., *et al.* SNC 80, a selective, nonpeptidic and systemically active opioid delta agonist. *J. Pharmacol. Exp. Ther.* **273(1)**, 359-366 (1995).
2. Calderon, S.N., Rothman, R.B., Porreca, F., *et al.* Probes for narcotic receptor mediated phenomena. 19. Synthesis of (+)-4-[(aR)-a-((2S,5R)-4-allyl-2,5-dimethyl-1-piperazinyl)-3-methoxybenzyl]-N,N-diethylbenzamide (SNC 80): A highly selective, nonpeptide d opioid receptor agonist. *J. Med. Chem.* **37(14)**, 2125-2128 (1994).
3. Knapp, R.J., Santoro, G., De Leon, I.A., *et al.* Structure-activity relationships for SNC80 and related compounds at cloned human delta and mu opioid receptors. *J. Pharmacol. Exp. Ther.* **277(3)**, 1284-1291 (1996).
4. Metcalf, M.D., Yekkirala, A.S., Powers, M.D., *et al.* The d opioid receptor agonist SNC80 selectively activates heteromeric μ-δ opioid receptors. *ACS Chem. Neurosci.* **3(7)**, 505-509 (2012).
5. Danielsson, I., Gasior, M., Stevenson, G.W., *et al.* Electroencephalographic and convulsant effects of the delta opioid agonist SNC80 in rhesus monkeys. *Pharmacol. Biochem. Behav.* **85(2)**, 428-434 (2006).

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