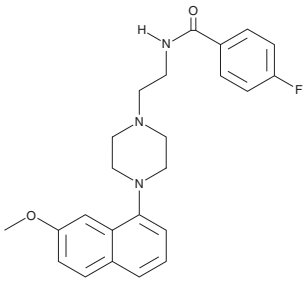
PRODUCT INFORMATION

S 14506

Item No. 32838

CAS Registry No.:	135722-25-7
Formal Name:	4-fluoro-N-[2-[4-(7-methoxy-1-naphthalenyl)-1-piperazinyl]ethyl]-benzamide
MF:	$C_{24}H_{26}FN_3O_2$
FW:	407.5
Purity:	≥98%
Supplied as:	A 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

S 14506 is supplied as a solid. A stock solution may be made by dissolving the S 14506 in the solvent of choice, which should be purged with an inert gas. S 14506 is soluble in ethanol and DMSO.

Description

S 14506 is an agonist of the serotonin (5-HT) receptor subtype 5-HT_{1A}.[1-4] It selectively binds 5-HT_{1A} over 5-HT_{1B}, 5-HT_{1C}, 5-HT_2, and 5-HT_3 receptors (K_is = 0.98, 281.8, 31.6, 229, and >1,000 nM, respectively) but also binds the dopamine D_2 receptor (K_i = 4.57 nM) in radioligand binding assays.[1,2] S 14506 stimulates GTPase activity in HEK293 cell membranes expressing 5-HT_{1A}-$G\alpha_{i1}$ or 5-HT_{1A}-$G\alpha_{o1}$ fusion proteins in a concentration-dependent manner.[3] It reduces immobility time in the forced swim test in rats with a minimum effective dose (MED) of 0.01 mg/kg.[4] S 14506 (0.0025-0.63 mg/kg) increases punished responding in a pigeon conflict procedure, indicating anxiolytic-like activity.[1]

References

1. Colpaert, F.C., Koek, W., Lehmann, J., *et al.* S 14506: A novel, potent, high-efficacy 5-HT_{1A} agonist and potential anxiolytic agent. *Drug Dev. Res.* **26(1)**, 21-48 (1992).
2. Protais, P., Chagraoui, A., Arbaoui, J., *et al.* Dopamine receptor antagonist properties of S 14506, 8-OH-DPAT, raclopride and clozapine in rodents. *Eur. J. Pharmacol.* **271(1)**, 167-177 (1994).
3. Milligan, G., Kellett, E., Dacquet, C., *et al.* S 14506: Novel receptor coupling at 5-HT_{1A} receptors. *Neuropharmacology* **40(3)**, 334-344 (2000).
4. Schreiber, R., Brocco, M., Gobert, A., *et al.* The potent activity of the 5-HT_{1A} receptor agonists, S 14506 and S 14671, in the rat forced swim test is blocked by novel 5-HT_{1A} receptor antagonists *Eur. J. Pharmacol.* **271(2-3)**, 537-541 (1994).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM