

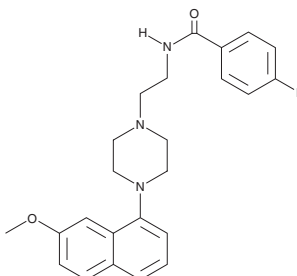
# PRODUCT INFORMATION



**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<sub>24</sub>H<sub>26</sub>FN<sub>3</sub>O<sub>2</sub>  
**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<sub>1A</sub>.<sup>1-4</sup> It selectively binds 5-HT<sub>1A</sub> over 5-HT<sub>1B</sub>, 5-HT<sub>1C</sub>, 5-HT<sub>2</sub>, and 5-HT<sub>3</sub> receptors (K<sub>i</sub>s = 0.98, 281.8, 31.6, 229, and >1,000 nM, respectively) but also binds the dopamine D<sub>2</sub> receptor (K<sub>i</sub> = 4.57 nM) in radioligand binding assays.<sup>1,2</sup> S 14506 stimulates GTPase activity in HEK293 cell membranes expressing 5-HT<sub>1A</sub>-Gα<sub>i1</sub> or 5-HT<sub>1A</sub>-Gα<sub>o1</sub> fusion proteins in a concentration-dependent manner.<sup>3</sup> It reduces immobility time in the forced swim test in rats with a minimum effective dose (MED) of 0.01 mg/kg.<sup>4</sup> S 14506 (0.0025-0.63 mg/kg) increases punished responding in a pigeon conflict procedure, indicating anxiolytic-like activity.<sup>1</sup>

## References

1. Colpaert, F.C., Koek, W., Lehmann, J., *et al.* S 14506: A novel, potent, high-efficacy 5-HT<sub>1A</sub> 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<sub>1A</sub> receptors. *Neuropharmacology* **40**(3), 334-344 (2000).
4. Schreiber, R., Brocco, M., Gobert, A., *et al.* The potent activity of the 5-HT<sub>1A</sub> receptor agonists, S 14506 and S 14671, in the rat forced swim test is blocked by novel 5-HT<sub>1A</sub> receptor antagonists. *Eur. J. Pharmacol.* **271**(2-3), 537-541 (1994).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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## 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