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Product Information

b-CFT naphthalenedisulfonate monohydrate

Catalog Number **C124**

Storage Temperature 2-8 °C

CAS RN: 77210-32-3 anhydrous

Synonyms: (-)-2-β-Carbomethoxy-3-β-(4-fluorophenyl)tropane 1,5-naphthalenedisulfonate monohydrate; WIN 35,428 naphthalenedisulfonate monohydrate

Product Description

Molecular Formula: C₁₆H₂₀FNO₂ · C₁₀H₈O₆S₂ · H₂O

Molecular Weight: 583.65

β-CFT naphthalenedisulfonate is a potent cocaine agonist. Studies have identified specific binding sites for ³H-cocaine in rodents, human and other primates. The potencies of various cocaine analogs for producing cocaine-like effects correlate with their relative binding affinities for these sites. CFT is 3-10 times more potent than (-)-cocaine as a psychomotor stimulant and as an inhibitor of specifically bound ³H-cocaine.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Soluble in water

Storage/Stability

Store at 2-8 °C

References:

1. Madras, B.K., et al., Effects of cocaine and related drugs in nonhuman primates. I. ³H-Cocaine binding sites in caudate-putamen., *J.Pharmacol. Exp. Ther.* **251**, 131 (1989).
2. Madras, B.K., et al., Cocaine receptors labeled by ³H-2β-Carbomethoxy- 3β-(4-fluorophenyl)tropane., *Mol. Pharmacol.* **36**, 518 (1989).
3. Ritz, M.C., et al., Cocaine self-administration appears to be mediated by dopamine uptake inhibition., *Prog. Neuro-Psychopharmacol. Biol. Psychiatry* **12**, 233 (1988).
4. Reith, M.E.A., et al., Structural requirements for cocaine congeners to interact with dopamine and serotonin uptake sites in mouse brain and to induce stereotyped behavior., *Biochem. Pharmacol.* **35**, 1123 (1986).
5. Sershyen et al., Comparison of properties of central and peripheral bonding sites for cocaine. *Neuropharmacology* **21**, 469 (1982).
6. D'Mello, G.D., et al., Conditioned taste aversion and operant behavior in rats: effects of cocaine, apomorphine and some long-acting derivatives, *J. Pharmacol. Exp. Ther.* **219**, 60 (1981).
7. Scheffel, U., et al., Cocaine receptors: *in vivo* labeling with ³H-(-)-cocaine, ³H WIN 35,065-2 and ³H WIN 35,428., *Synapse* **4**, 390 (1989).
8. Canfield, D.R., et al., Autoradiographic localization of cocaine binding sites by ³H CFT (³H WIN 35,428) in the monkey brain., *Synapse* **6**, 189 (1990).
9. Scheffel, U., et al., *In vivo* labeling of cocaine binding sites on dopamine transporters with ³H WIN 35,428." *J. Pharmacol. Exp. Ther.* **257**, 954 (1991).
10. Rudnick, G. and Wall, S.C., Binding of the cocaine analog 2β-³H carboxymethoxy-3β-(4-fluorophenyl)tropane to the serotonin transporter., *Mol. Pharmacol.* **40**, 421 (1991).

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