



Product Information

Cat. No. C-124

CFT NAPHTHALENE DISULFONIC ACID SALT (1:1)

WIN 35,428

Potent cocaine agonist. Recent 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- to 10-times more potent than (-)-cocaine as a psychomotor stimulant and as an inhibitor of specifically bound [³H]cocaine.

Mol. Formula: C₁₆H₂₀FNO₂·C₁₀H₈S₂O₆

Mol. Wt.: 565.55 (anhyd.)

m.p.: 202-204°C

CAS Registry No.: 50370-56-4

Chemical Name: (-)-2-β-Carbomethoxy-3-β-(4-fluorophenyl)tropane 1,5-naphthalenedisulfonate

Physical Properties: White solid; [α]_D²⁵ = -62.5° (c = 1, H₂O).

Pharmacology: Binding studies using [³H]-CFT in monkey caudate-putamen membranes: high affinity component; k_d = 4.7 nM, β_{max} = 50 pmole/g; low affinity component; k_d = 60 nM, β_{max} = 291 pmoles/g.¹

Caution: The pharmacology of this compound is incompletely characterized and due care should be exercised in its use. Avoid skin contact, ingestion or inhalation.

Storage: Store tightly sealed at 4°C.

Solubility: Soluble in water.

Disposal: Dissolve or mix the compound with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

References:

1. Madras, B.K., Fahey, M.A., Bergman, J., Canfield, D.R., Spealman, R.D. "Effects of Cocaine and related drugs in nonhuman primates. I. [³H]Cocaine binding sites in caudate-putamen." *J. Pharmacol. Exp. Ther.* **251**(1), 131 (1989).
2. Madras, B.K., Spealman, R.D., Fahey, M.A., Neumeyer, J.L., Saha, J.K., Milius, R.A. "Cocaine receptors labeled by [³H]2β-Carbomethoxy-3β-(4-fluorophenyl)tropane." *Mol. Pharmacol.* **36**, 518 (1989).

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3. Ritz, M.C., Lamb, R.J., Goldberg, S.R., Kuhar, M.J. "Cocaine self- administration appears to be mediated by dopamine uptake inhibition." *Prog. Neuro-Psychopharmacol. Biol. Psychiatry* **12**, 233 (1988).
4. Reith, M.E.A., Meisler, B.E., Sershen, H., Lajtha, A. "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., Goldberg, D.M., Goldberg, S.R., Stolerman, I.P. "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., Boja, J.W., Kuhar, M.J. "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., Spealman, R.D., Kaufman, M.J., Madras, B.K. "Autoradiographic localization of cocaine binding sites by [³H]CFT ([³H]WIN 35,428) in the monkey brain." *Synapse* **6**, 189 (1990).
9. Scheffel, U., Pöggün, S., Stathis, M., Boja, J.W., Kuhar, M.J. "In vivo labeling of cocaine binding sites on dopamine transporters with [³H]WIN 35,428." *J. Pharmacol. Exp. Ther.* **257(3)**, 954 (1991).
10. Rudnick, G., Wall, S.C. "Binding of the cocaine analog 2β-[³H]carboxymethoxy-3β-(4-fluorophenyl)tropane to the serotonin transporter." *Mol. Pharmacol.* **40**, 421 (1991).

TELEPHONE ORDERS ARE NOT ACCEPTED FOR THIS COMPOUND.

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