

Drug Status Report

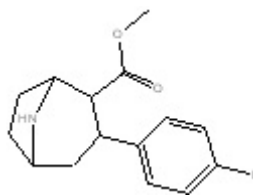
Drug: (-)-2 β -Carbomethoxy-3 β -(4-iodophenyl)nortropane

Drug Name Status: N-Nor-3-(4'-iodophenyl)tropane-2-carboxylic acid methyl ester

Chemical Name: 8-Azabicyclo(3.2.1)octane-2-carboxylic acid, 3-(4-iodophenyl)-methyl ester, (1R-(exo,exo))

Other Names: N-Nor-CIT, Nor- β -CIT

Chemical structure:



Molecular Formula: C₁₅H₁₈INO₂

Pharmacological class / Application: 5-HT transporter ligand

International status:

US: The substance is not listed specifically in the Schedules to the CSA and is not mentioned in the DEA website. However, it may be considered a controlled substance under Schedule II to the CSA.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control. The drug is not listed on the Green List - List of Psychotropic Substances under International Control.

Canadian Status: (-)-2 β -Carbomethoxy-3 β -(4-iodophenyl)nortropane is an analogue of *N*-norcocaine and has been shown in both *in vitro* and *in vivo* studies to display an enhanced affinity for the serotonin and norepinephrine transporters^{1,2}. The substance is synthesized directly

¹Boja, JW. *et al.* (1994) Secondary amine analogues of 3 β -(4'-substituted phenyl)tropane-2 β -carboxylic acid esters and *N*-norcocaine exhibit enhanced affinity for serotonin and norepinephrine transporters, *J. Med. Chem.* **37**:1220-1223.

²Reneman, L. *et al.* (1999) Comparative *in vivo* study of iodine-123-labeled β -CIT and nor- β -CIT binding to serotonin transporters in rat brain, *Synapse* **34**:77-80.

from cocaine³, which is listed as Item 2(2) under Schedule I to the CDSA, and therefore is included under Item 2(2) of Schedule I under the heading “Coca (Erythroxyton), its preparations, derivatives, alkaloids and salts, including:”

Recommendation: (-)-2 β -Carbomethoxy-3 β -(4-iodophenyl)nortropane is included in Item 2 of Schedule I to the CDSA and is considered a controlled substance.

March 8th, 2010.

³Ametamey, SM. et al. (1995) Synthesis of Nor- β -CIT and trimethylstannyl- β -CT, Nucl. Med. Biol. 22:959-964.