

**SIMPLE LABELLING METHOD OF AMPHETAMINE
WITH ^{123}I**

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N-isopropyl- ^{123}I -p-iodoamphetamine (IMP) developed by Winchell et al. (1980) is a single-photon radiopharmaceutical that penetrates the normal blood-brain-barrier (BBB) due its lipophilic form. We report the validity of labelling method of IMP with ^{123}I produced at IPEN/CNEN using the following procedure: 5-10 mCi ^{123}I in 0,01M NaOH were added to 3 mg IMP in 1.0ml H_2O and 50 ul 1% CuSO_4 solution and, after heated at 60°C during 30 min the product was purified by Dowex 1X8 resin, 100-200 mesh, rinsed with 1-2ml of H_2O . ^{123}I -IMP is formulated in buffered saline solution, pH 4.6-6.0. Radiochemical purity was evaluated by paper chromatography and HPLC- RP - C18 systems. The results varied from 98.8 to 99.2%. The overall labelling yield was between 79.90 and 88.80%. The product shows an stability during 48 hours (97.70%). Biological distribution studies in Wistar rats exhibited ^{123}I -IMP fast blood clearance and is taken up by lung, liver and brain (5.03, 17.54 and 1.59% dose/organ) after 60 min of administration. A low thyroid uptake represents no-deiodination "in vivo".

The labelling and quality control procedures are fast, simple and reproductive methods, obtaining, in 80 minutes IMP labelled with short-half-life ^{123}I .