

FURTHER STUDIES WITH O-IODOHIPPURATE KIT LABELLED WITH ^{123}I AND/OR ^{131}I

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The aim of this work was to study the cold kit preparation of o-iodohippurate (OIH), to facilitate the utilization of ^{123}I in clinical nuclear medicine. The kit is constituted by 2 vials: a) 120 mg. OIH, 20 μg CuCl_2 , pH = 4.6-4.9, and b) phosphate buffer EDTA pH = 6.0. Each vial (a) is labelled by adding ^{131}I -Na

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solution with different activities: 222-370-407-1665 and 3, 145 MBq in 0.1-0.2 ml., the vial is then heated for 30 minutes at 100° C and after cooling 0.5 ml. of phosphate buffer (b) is added resulting a pH = 6.0 ready solution. Labeling yields were evaluated with Whatman 3M paper chromatography strip (8 × 1 cm.) employing chloroform and acetic acid (9:1) as a solvent.

Biological distribution was carried out in Wistar rats at different time intervals (1, 5, 10, 15, 30 and 60 minutes) after injection.

The radiochemical yield varied from 98.1 to 95.1% using different activities (222 to 3.145 MBq) and during 15 days after labelled. These results were compared with those of the routine production of ¹³¹I-OIH at IPEN-CNEN/SP (95.5%). The renal uptake decrease quickly within the first 10 minutes. Fast clearance from blood was observed with high activity (98.30%) excreted in urine after 60 minutes.

This method offers advantages over previously reported procedures and appears readily adaptable in nuclear medicine units to label at the «in situ» of use. (It also reduces time, cost and improves clinical evaluation with reduced radiation dose to the patient when labelled with ¹²³I.)