

Summary

Metabolism of ^{123}I -IBF in Humans

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The metabolism of ^{123}I -IBF in humans has been studied *in vivo* and *in vitro* to evaluate the quantitative analysis of dopamine D₂ receptor. ^{123}I -IBF was rapidly metabolized in humans following i.v. administration. ^{123}I -nor-ox-IBF, ^{123}I -ox-IBF, ^{123}I -nor-IBF and various unidentified metabolites were found in the plasma and urine. Slight deiodination of ^{123}I -IBF occurred following i.v. administration. The major metabolites were detected using *in vitro* human P450

gene expression systems. These results indicate that ^{123}I -IBF is enzymatically metabolized in the liver and rapidly excreted in the urine. In addition, the chemical structures of the identified plasma metabolites suggest that these metabolites do not cross the blood-brain barrier.

Key words: ^{123}I -IBF, Metabolism, Human, P450, FAB/MS.