Summary

Evaluation of the Product Specific Standard Input Function for the IMP-ARG Method

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To confirm the previous reports demonstrating the difference in the octanol extraction fractions between the currently available two N-isopropyl-4-iodoamphetamine (123I) products (IMP\textsubscript{A} and IMP\textsubscript{B}), we newly developed the standard input function for IMP\textsubscript{B} in 19 healthy volunteers and compared it with the established standard input function, which has been originally generated with IMP\textsubscript{A}.

The octanol extraction fractions of IMP\textsubscript{B} were stable from 5 minutes to 16 minutes post injection and significantly higher than those of IMP\textsubscript{A}. The mCBFs calculated with IMP\textsubscript{B} by using the established standard input function for IMP\textsubscript{A} tended to be higher than those with the combination of IMP\textsubscript{A} and the established standard input function though the difference was not significant.

When measured with IMP\textsubscript{B} combined with the correspondent standard input function, mCBFs were identical to those calculated with IMP\textsubscript{A} with the established standard input function, suggesting that the appropriate standard input function should be used according to the product used.

**Key words:** IMP, Standard input function, ARG method, CBF.