# Monoamine oxidase inhibitory effects of some 4-aminophenethylamine derivatives

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The in vitro and ex vivo monoamine oxidase (MAO) inhibitory effects of (±)4-dimethylamino-?-methyl-phenethylamine 4-DMAA) and (±)4-methylamino-?-methyl-phenethylamine (4-MAA) were reassessed, in comparison with the previously unstudied achiral parent compound, 4-dimethyl-aminophenethylamine (4-DMAPEA) and with a salt of 4-DMAA enriched in the levo isomer, ("-")-4-DMAA, using amiflamine [S-(+)-4-dimethylamino-?,2-dimethylphenethylamine] as positive control. The in vitro studies confirmed that 4-amino-?-methylphenethylamine derivatives are highly selective and reversible MAO-A inhibitors. Furthermore, ("-")-4DMAA was less active than the racemic mixture. The side chain-unsubstituted compound, 4-DMAPEA, proved to be a nonselective and reversible MAO inhibitor. The ex vivo results, in which catecholamines, serotonin (5-HT) and their metabolites were measured in two brain regions after i.p. administration, confirmed the results obtained in vitro. These results are consistent with the sugges