

## ABSTRACT

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Title of Diploma Thesis: Biological activity of plants metabolites. XIX. Alkaloids of *Peumus boldus* MOL.

A chloroform extract (pH 9-10, tertiary alkaloidal bases) was prepared from the leaves of *Peumus boldus* Mol. Processing of this extract by column chromatography and subsequent crystallization of fractions 34-39 led to the isolation of a compound named MB-1. The compound was identified as an aporphine alkaloid (+)-isocorydine (m. t. 183-184 °C) on the basis of results of spectral analysis (MS and NMR studies) and their comparison with literature. The isolated compound was tested for human blood acetylcholinesterase (AChE) and human plasma butyrylcholinesterase (BuChE) inhibition activity and for antioxidative activity (DPPH test). (+)-Isocorydine did not show significant human cholinesterase inhibition activity (AChE:  $IC_{50} > 1000 \mu M$ ; BuChE:  $IC_{50} = 657,1 \mu M$ ) in comparison with reference compounds and did not show significant antioxidative effect in DPPH test ( $EC_{50} > 1000 \mu M$ ) in comparison with reference antioxidants.

Key words: *Peumus boldus*, (+)-isocorydine, acetylcholinesterase, butyrylcholinesterase, antioxidative activity