

Inhibition of Acetylcholinesterase by Extracts and Constituents from *Angelica archangelica* and *Geranium sylvaticum*

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The aim of this study was to explore the acetylcholinesterase (AChE) inhibition of several Icelandic medicinal herbs. Ethanolic extracts of *Angelica archangelica* seeds and the aerial parts of *Geranium sylvaticum* proved effective, with IC₅₀ values of 2.20 mg/ml and 3.56 mg/ml, respectively. The activity of imperatorin and xanthotoxin from *A. archangelica* was measured. Xanthotoxin proved much more potent than imperatorin, with an IC₅₀ value of 155 µg/ml (0.72 mM) but that for imperatorin was above 274 µg/ml (1.01 mM). However, furanocoumarins seem to have a minor part in the total activity of this extract. Synergistic interaction was observed between the extracts of *A. archangelica* and *G. sylvaticum*. Several medicinal herbs (*Achillea millefolium*, *Filipendula ulmaria*, *Thymus praecox* and *Matricaria maritima*) did not show AChE inhibitory activity.

Key words: Acetylcholinesterase, *Angelica archangelica*, *Geranium sylvaticum*