

<b>Title (1)</b>	:	<b>Characterization of Metabolites in an Endophytic Fungus <i>Diaporthe fraxini</i> via NMR-based Metabolomics and Cholinesterase Inhibitory Activity</b>
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<b>Abstract</b>	:	<p>Endophytic <i>Diaporthe</i> is a fungal genus having an extensive distribution in plant hosts. It is known as a valuable source of bioactive metabolites with potent biological properties. In the present study, proton nuclear magnetic resonance (<sup>1</sup>H-NMR) coupled with multivariate analysis (MVA) was employed to discriminate the chemical profile of <i>Diaporthe fraxini</i> cultured under different growth conditions. Cholinesterase inhibitory assay was performed to assess the activity of the fungal extracts against acetylcholinesterase and butyrylcholinesterase. Discriminant metabolites responsible for the chemical variations were successfully obtained using <sup>1</sup>H-NMR-based metabolomics approach. Principal component analysis showed a clear discrimination of the fungal extracts of <i>D. fraxini</i> grown under different conditions. Cholinesterase inhibitory activity studies revealed the potential of supplemented cultured fungal extract of <i>D. fraxini</i> as a source of cholinesterase inhibitor.</p>