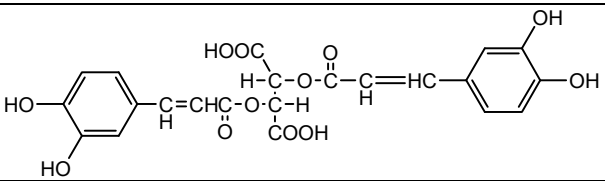
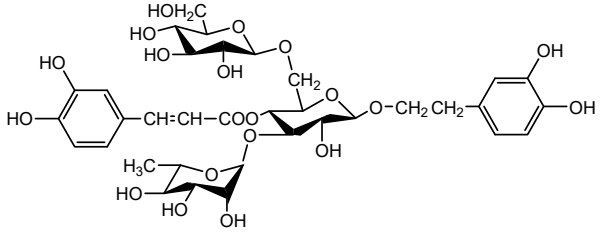
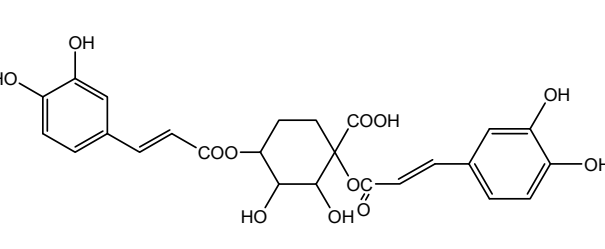
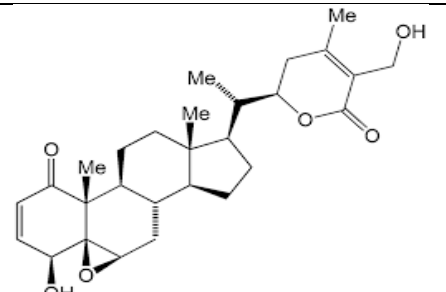
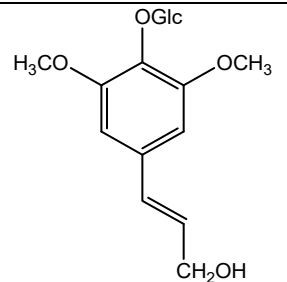
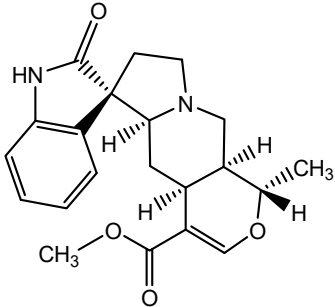
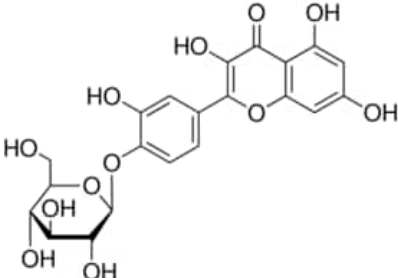
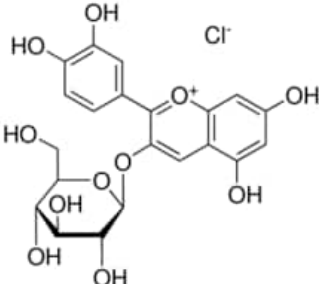


**Table S1.** Chemical structure of main active constituents in herbs with immunostimulating effect.

Source	Type of extract	Active molecule	Structure	Functions	Ref.
<i>Echinacea purpurea herba recens</i>	Fresh juice	Alkamide complex	$R-C(=O)-NH-CH_2-\underset{\text{CH}_3}{\overset{\text{CH}_3}{CH}}$ $R = \begin{array}{c} \text{---CH=CH---CH=CH---CH}_2\text{---CH=CH---CH=CH} \\ \text{---HC=HC---C=HC---H}_2\text{C---H}_2\text{C---C}\equiv\text{C---C}\equiv\text{C} \end{array}$	<p>Stimulation of T lymphocytes</p> <p>Increase of globulin level</p> <p>Stimulation of leukocytosis and granulocytosis</p>	[26, 27]
<i>Echinacea purpurea radix</i>	Ethanolic extract	Cichoric acid		Stimulation of interleukins (IL-1, IL-6) and TNF-α biosynthesis	[28]
<i>Echinacea pallida radix</i>	Ethanolic extract	Echinacoside		<p>Increase of phagocytosis</p> <p>Stimulation of interferon and immunoglobulin biosynthesis</p> <p>Increase of cytokines</p>	[29]
<i>Echinacea angustifolia radix</i>	Ethanolic extract	Cynarin		<p>Stimulation of monocytes</p> <p>Increased production of TNF-α and interleukins (IL-10 and IL-12)</p> <p>Increase of phagocytosis</p>	[30, 31]
<i>Withania radix</i>	Aqueous extract	Withaferin A		<p>Th1 (IFN-γ, IL-2) and Th2 (IL-4) cytokine modulation</p> <p>Decrease in the concentration of T lymphocytes</p>	[32]
<i>Eleutherococcus radix</i>	Aqueous-ethanolic extract	Syringin = Eleutheroside B		<p>Increased phagocytosis of human leukocytes and granulocytes</p> <p>Increased level of interleukins (IL-1 and IL-6)</p>	[33, 34]

<i>Uncariae cortex</i>	Aqueous extract	Isopteropodine		<p>Stimulating of phagocytes</p> <p>Inhibition of cancer cell growth via the stimulation of interleukins (IL-1 and IL-6) production in alveolar macrophages</p>	[35, 36]
<i>Filipendulae ulmariae flos et herba</i>	Aqueous extract	Spiraeoside		<p>Increased anti-inflammatory activity via leukocyte stimulation</p>	[37]
<i>Sambuci fructus</i>	Aqueous extract	Cyanidin 3-glucoside chloride		<p>Increased production of cytokines by monocytes</p>	[38]