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• 計畫中文名稱	大豆蛋白質酵素水解物對於自發性高血壓大白鼠的降血壓效果
• 計畫英文名稱	Effect of the Hydrolysate Derived from Soybean Protein on Blood Pressures in Spontaneously Hypertensive Rats
• 主管機關	行政院國家科學委員會
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• 中文關鍵字	大豆蛋白；高血壓；血壓；血管張力素轉化？；胜？；自發性高血壓大鼠
• 英文關鍵字	Soybean protein；Hypertension；Blood pressure；Angiotensin converting enzyme (ACE)；Peptide；Spontaneously hypertensive rat (SHR)
• 中文摘要	本研究採用之大豆蛋白質酵素水解物係由大豆酸沈澱蛋白質經胃蛋白？作用後精製而得。研究中測驗大豆蛋白質酵素水解物的抑制血管收縮素轉換酵素活性,以及在自發性高血壓大白鼠之降血壓功效。精製過程中得到 3 個劃分,分別爲:SP-1、SP-2 及 SP-3。其中 SP-1 的抑制活性 IC/sub 50/爲 0.5mg/mL,比 SP-2 及 SP-3 具有更高的活性。經胺基酸成分分析的結果顯示,SP-1 比 SP-2 及 SP-3 具有較多的芳香族胺基酸,因此推論芳香族胺基酸與抑制血管收縮素轉換酵素的活性有密切的相關性。SP-1 在經口投予(1.0、2.0、4.0mg/kg)實驗上均能顯著的降低自發性高血壓大白鼠的血壓。
• 英文摘要	Soybean protein hydrolysate (SPH) prepared from soybean acid precipitated protein by treatment with pepsin was tested for inhibitory activity against angiotensin I converting enzyme (ACE) and for hypotensive effects on spontaneously hypertensive rats (SHR). Three inhibitory peptide fractions of ACE isolated from the SPH. SP-I at 0.5mg/mL concentration provided 50% inhibition against ACE, and SP-I was more effective compared with SP-II and SP-III. The data showed that the characteristic of SP-I fractions was contained hydrophobic and aromatic amino acids, and it is related to the decrease of ACE activity. Also, the anti-hypertensive activity of the soybean broth SP-I fraction was investigated. SP-I (1.0, 2.0, 4.0mg/kg, pc) markedly lowered the blood pressure of the SHR.