

Studies on the Inhibition of Oxidative Damage to LDL and Cell DNA by Bovine Colostrum Whey Hydrolysates

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ABSTRACT

In this study bovine colostrums collected on the second day postpartum were used to isolate the whey, and then two enzymes, alcalase and flavourzyme, were used to hydrolyze the whey using two-stage method. The whey hydrolysates were finally fractionated by ultrafiltration with a 10 kDa molecular weight (MW) cut-off membrane. The inhibition of cell DNA damage and low density lipoprotein (LDL) oxidation by the samples, including whey hydrolysates, the hydrolysate fraction of MW>10 kDa and the hydrolysate fraction of MW10 kDa and the hydrolysate fraction of MW 10 kDa did not promote DNA single-strand cleavage at any concentrations, but the hydrolysate fraction of MW

Keywords : Bovine colostrums、Whey protein、Whey hydrolysates、Antioxidant、Oxidative damage

Table of Contents

封面內頁 簽名頁 授權書 中文摘要 英文摘要 誌謝 目錄 圖目錄 表目錄 1. 前言 2. 文獻回顧 2.1 初乳之簡介 2.1.1 牛乳的蛋白質組成 2.2 乳清蛋白及其組成成分之生物特性 2.2.1 -乳球蛋白(-lactoglobulin) 2.2.2 -乳白蛋白(-lactalbumin) 2.2.3 乳鐵蛋白(lactoferrin) 2.2.4 免疫球蛋白(immunoglobulins) 2.2.5 牛血清白蛋白(bovine serum albumin) 2.2.6 乳過氧化酶(lactoperoxidase) 2.3 蛋白質水解的特性與運用 2.3.1 水解方式及條件 2.3.2 蛋白質水解酵素 2.3.3 酵素水解之影響因子 2.3.4 乳清水解物之機能性 2.4 氧化作用 2.4.1 自由基 2.4.2 氧化壓力 2.4.3 費頓反應(Fenton reaction) 2.5 DNA氧化傷害 2.5.1 8-氫氧-2'-去氧鳥糞嘌呤核糖 2.5.2 Bleomycin 2.6 人類低密度脂蛋白(Low density lipoprotein, LDL) 2.6.1 氧化修飾低密度脂蛋白(OxLDL) 2.6.2 丙二醛(Malondialdehyde)及TBA反應物 2.7 抗氧化物質與其作用機制 3. 材料與方法 3.1 實驗材料 3.1.1 原料 3.1.2 藥品 3.1.3 儀器設備 3.1.4 蛋白質分解酵素 3.2 實驗方法與分析項目 3.2.1 本實驗流程 3.2.2 乳清水解物之製備 3.2.3 以超過濾法進行水解物之劃分 3.2.4 乳清水解物對生物分子氧化傷害之抗氧化性 3.2.5 乳清水解物及其劃分物對生物分子保護及降低氧化傷害之研究 3.2.6 初乳乳清於抑制LDL氧化修飾之探討 3.2.5 統計分析 4. 結果與討論 4.1 兩階段酵素水解乳清蛋白之水解率 4.2 對生物分子氧化傷害之抗氧化性 4.2.1 乳清水解物及其不同分子量超過濾劃分物對Fenton reaction誘導的deoxyribose氧化傷害之影響 4.2.2 乳清水解物及其不同分子量超過濾劃分物對Fenton reaction誘導的DNA單股斷裂之影響 4.2.3 乳清水解物及其不同分子量超過濾劃分物對Fenton reaction誘導2'-deoxyguanosine (2'-dG)氧化形成8-hydroxy-2'-deoxy-guanosine (8-OH-2'-dG)之影響 4.2.4 乳清水解物及其不同分子量超過濾劃分物對bleomycin-Fe³⁺誘導DNA氧化傷害之影響 4.2.5 乳清水解物及其劃分物對生物分子保護及降低氧化傷害之研究 4.3 乳清水解物及其不同分子量超過濾劃分物對銅離子誘導LDL氧化修飾之影響 4.3.1 乳清水解物及其不同分子量超過濾劃分物對Cu²⁺誘導LDL氧化生成TBARS之影響 4.3.2 乳清水解物及其不同分子量超過濾劃分物對Cu²⁺誘導LDL氧化生成共軛雙烯(conjugated diene, CD)之影響 5. 結論 參考文獻

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