United States Patent [19]

Brule et al.

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[54] **NON-PHOSPHORYLATED PEPTIDES FROM CASEIN-BASED MATERIAL**

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[*] Notice: The portion of the term of this patent subsequent to Nov. 9, 1999 has been disclaimed.

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Related U.S. Application Data

[60] Continuation of Ser. No. 637,733, Aug. 6, 1984, abandoned, which is a continuation of Ser. No. 358,931, Jun. 16, 1982, Pat. No. 4,495,176, which is a division of Ser. No. 229,062, Jan. 28, 1981, Pat. No. 4,358,465.

[30] **Foreign Application Priority Data**

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[52] **U.S. Cl.** **435/69;** 426/42; 426/657; 426/491; 435/272; 514/2; 514/6; 514/7; 530/352

[58] **Field of Search** 426/34, 42, 657, 491; 435/69, 272; 424/128, 131, 140, 145, 147, 177; 530/352; 514/2, 6, 7

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[57] **ABSTRACT**

Nonphosphorylated peptides and phosphopeptides useful as alimentary products or medicaments are produced by proteolytic enzyme hydrolysis of a casein-based material. Ultrafiltration is used to separate phosphopeptides and nonphosphorylated peptides after hydrolysis. A bivalent cation is added to form aggregates of the phosphopeptides, and the aggregated phosphopeptides are separated from the nonphosphorylated peptides by ultrafiltration. The phosphopeptides form salts, which have dietefic uses, with macroelements such as calcium and/or magnesium and/or oligoelements such as iron and zinc.

9 Claims, 2 Drawing Sheets