Isolation of κ-casein glycomacropeptide from bovine whey fraction using food grade anion exchange resin and chitin as an adsorbent

Takuo Nakano* and Mirko Betti

SUPPLEMENTARY FILE

Supplementary Table S1. Analysis of acetic acid recovered from chitin and N-acetylglucosamine samples after acid hydrolysis

Sample	μg/mg dry weight
Chitin A	259.0†
Chitin B	239.0
Chitin C	247.7
N-acetylglucosamine	281.0

†Average of results obtained in duplicate determinations.

Supplementary Table S2. Amount of anion exchanger packed in a 1.8 ml column

Anion exchanger	Mg dry weight
Resin A	395†
Resin B	388
Resin C	394
Chitin A	218
Chitin B	143
Chitin C	193

†Average of results obtained in duplicate measurements.

Supplementary Table S3. Amino acid composition of GMP fraction obtained by chromatography of SWF on resin B. GMP adsorbed on the column was eluted with a 0-1 M ammonium bicarbonate gradient.

Amino acid	Mol%
Asx†	7.6‡
Ser	10.7
Glx	16.0
Gly	2.0
His	nd
Arg	nd
Thr	18.6
Ala	7.9
Pro	11.6
Tyr	nd
Val	9.3
Lys	4.7
Ile	9.5
Leu	2.1
Phe	nd

†Cysteine, methionine and tryptophan were not determined.
‡Average of results from two experiments. nd: Not detected.

Supplementary Figure legend

Supplementary Figure S1. Chromatography of SWF on resin B. GMP adsorbed on the column was eluted with a 0-1 M ammonium bicarbonate (NH4HCO3) gradient. Absorbance values at tube numbers > 65 ranged from 2.8 to 3.1. Details as in legend to Fig. 1.

Supplementary Figure S1