

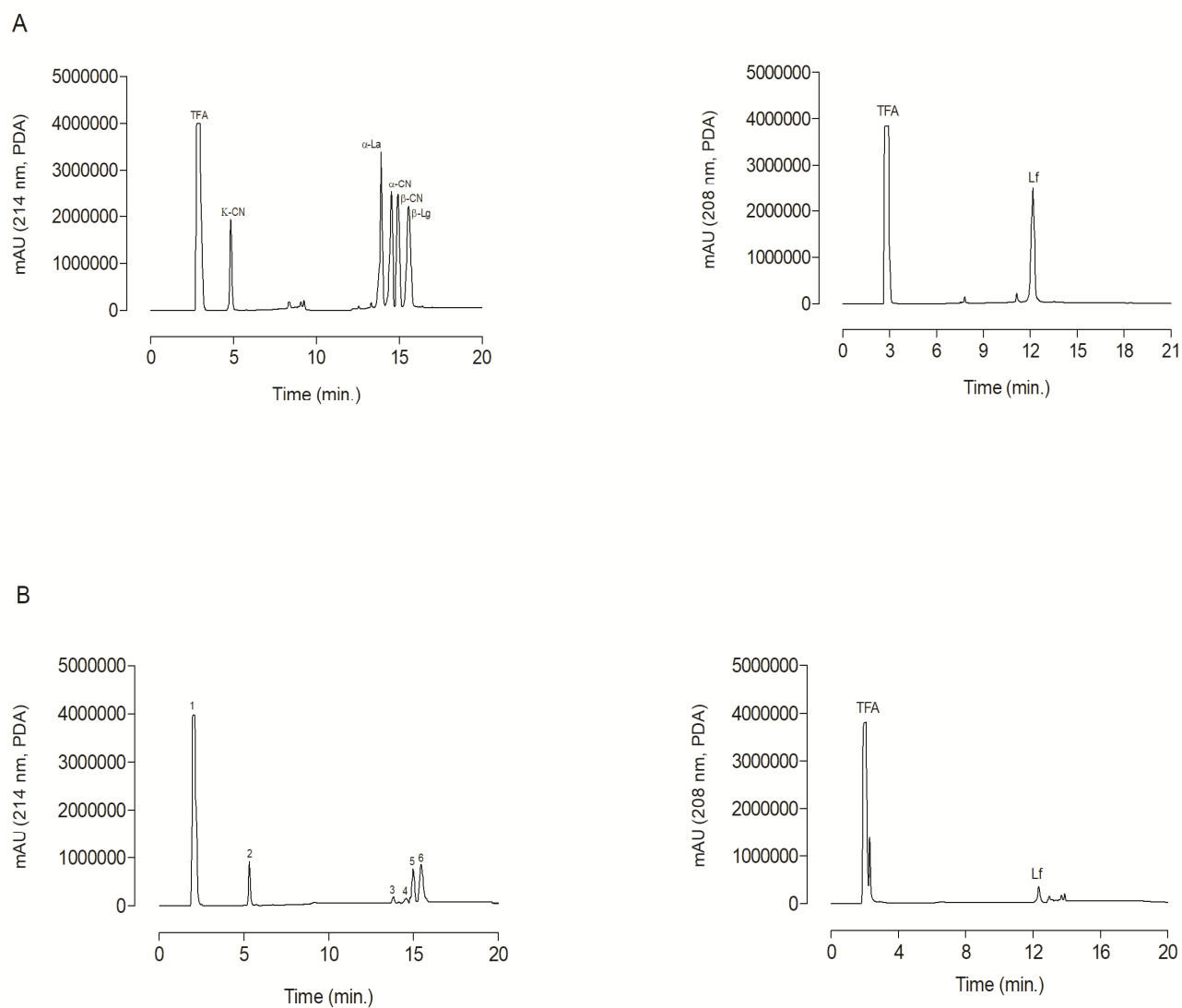
**Table S1.** Coded infant formulas.

| Brand code | Age (mo)<br>0 – 6 | Batch code | Age (mo)<br>6 - 12 | Batch code |
|------------|-------------------|------------|--------------------|------------|
| ME         | 1                 | ME1A       | 2                  | ME2A       |
|            |                   | ME1B       |                    | ME2B       |
|            |                   | ME1C       |                    | ME2C       |
| NC         | 1                 | NC1A       | 2                  | NC2A       |
|            |                   | NC1B       |                    | NC2B       |
|            |                   | NC1C       |                    | NC2C       |
| NN         | 1                 | NN1A       | 2                  | NN2A       |
|            |                   | NN1B       |                    | NN2B       |
|            |                   | NN1C       |                    | NN2C       |
| DM         | 1                 | DM1A       | 2                  | DM2A       |
|            |                   | DM1B       |                    | DM2B       |
|            |                   | DM1C       |                    | DM2C       |
| DA         | 1                 | DA1A       | 2                  | DA2A       |
|            |                   | DA1B       |                    | DA2B       |
|            |                   | DA1C       |                    | DA2C       |

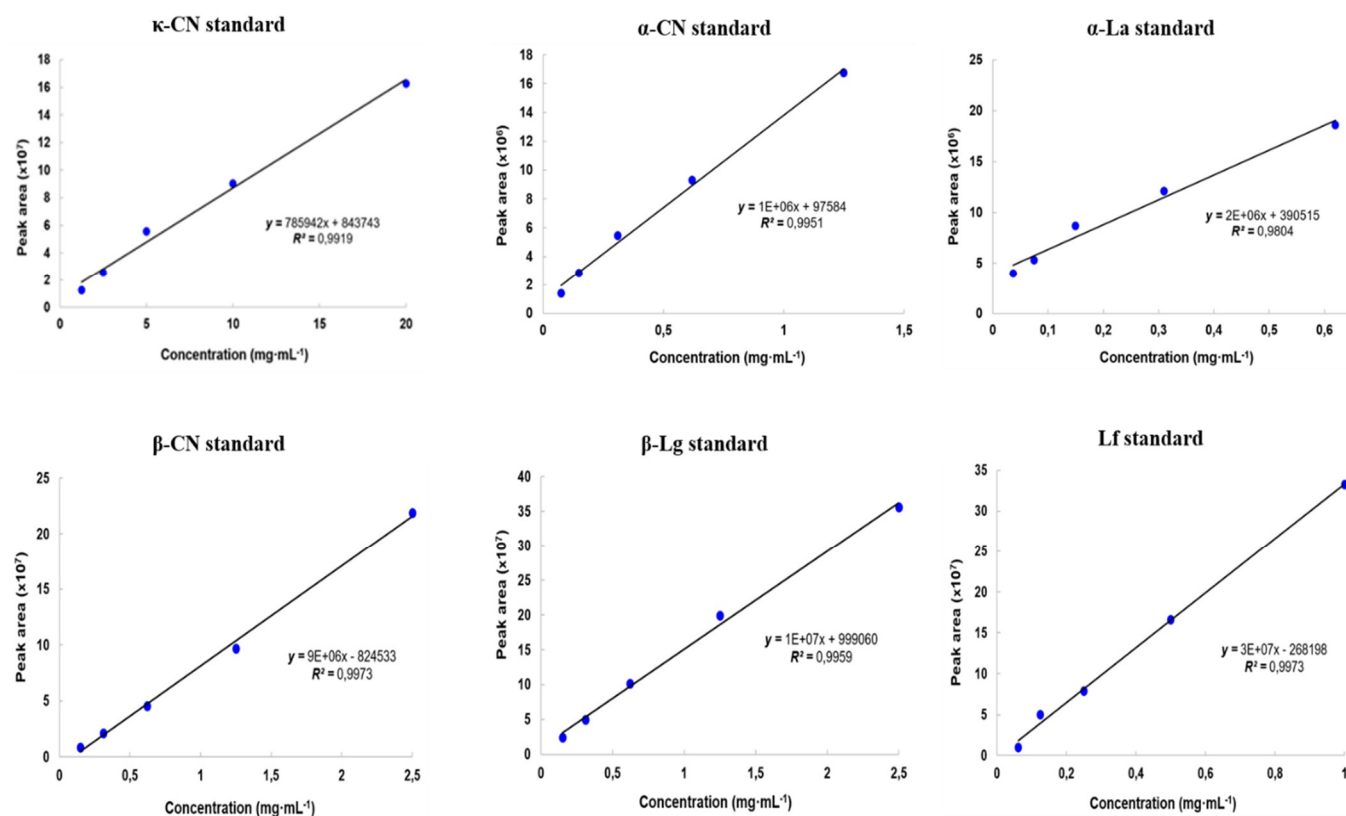
**Table S2.** Protein label content vs. determined crude protein in different infant formulas (IFs).

| Infant formulas | Protein content - experimentally evaluated |                          | Protein label content |                          |
|-----------------|--|--------------------------|-----------------------|--------------------------|
|                 | g·100 g <sup>-1</sup>                      | g·100 kcal <sup>-1</sup> | g·100 g <sup>-1</sup> | g·100 kcal <sup>-1</sup> |
| ME1A            | 11.61 ± 0.01 <sup>c,*</sup>                | 2.4                      | 9.7 g                 | 2.0 g                    |
| ME1B            | 10.63 ± 0.04 <sup>d</sup>                  | 2.2                      |                       |                          |
| ME1C            | 15.52 ± 0.72 <sup>a,*</sup>                | 3.2                      |                       |                          |
| ME2A            | 14.01 ± 1.21 <sup>b,*</sup>                | 2.8                      | 12.0 g                | 2.4 g                    |
| ME2B            | 16.32 ± 1.44 <sup>a,b,*</sup>              | 3.3                      |                       |                          |
| ME2C            | 15.15 ± 2.01 <sup>a,b,*</sup>              | 3.1                      |                       |                          |
| NC1A            | 9.77 ± 0.10 <sup>d</sup>                   | 1.9                      | 9.3 g                 | 1.8 g                    |
| NC1B            | 13.89 ± 0.43 <sup>b,*</sup>                | 2.7                      |                       |                          |
| NC1C            | 10.19 ± 0.66 <sup>d</sup>                  | 2.0                      |                       |                          |
| NC2A            | 13.54 ± 1.35 <sup>b,*</sup>                | 2.8                      | 9.0 g                 | 1.9 g                    |
| NC2B            | 13.66 ± 1.25 <sup>b,*</sup>                | 2.9                      |                       |                          |
| NC2C            | 15.44 ± 0.74 <sup>a,*</sup>                | 3.2                      |                       |                          |
| NN1A            | 11.96 ± 1.07 <sup>c</sup>                  | 2.4                      | 11.0 g                | 2.2 g                    |
| NN1B            | 14.53 ± 1.14 <sup>a,b,*</sup>              | 2.9                      |                       |                          |
| NN1C            | 9.71 ± 1.31 <sup>d</sup>                   | 2.0                      |                       |                          |
| NN2A            | 13.21 ± 1.15 <sup>b,c,*</sup>              | 2.8                      | 11.0 g                | 2.3 g                    |
| NN2B            | 14.92 ± 0.74 <sup>a,*</sup>                | 3.1                      |                       |                          |
| NN2C            | 14.20 ± 0.64 <sup>b,*</sup>                | 3.0                      |                       |                          |
| DM1A            | 15.91 ± 1.49 <sup>a,*</sup>                | 3.1                      | 11.0 g                | 2.2 g                    |
| DM1B            | 16.71 ± 1.38 <sup>a,*</sup>                | 3.3                      |                       |                          |
| DM1C            | 14.68 ± 2.26 <sup>a,*</sup>                | 2.9                      |                       |                          |
| DM2A            | 15.58 ± 0.56 <sup>a,*</sup>                | 3.2                      | 14.0 g                | 2.9 g                    |
| DM2B            | 11.57 ± 0.43 <sup>c,*</sup>                | 2.4                      |                       |                          |
| DM2C            | 15.57 ± 0.82 <sup>a,*</sup>                | 3.2                      |                       |                          |
| DA1A            | 11.05 ± 0.51 <sup>d,*</sup>                | 2.3                      | 9.8 g                 | 2.0 g                    |
| DA1B            | 10.65 ± 1.02 <sup>d</sup>                  | 2.2                      |                       |                          |
| DA1C            | 12.46 ± 0.31 <sup>c,*</sup>                | 2.6                      |                       |                          |
| DA2A            | 14.54 ± 0.62 <sup>b,*</sup>                | 3.2                      | 11.0 g                | 2.4 g                    |
| DA2B            | 13.84 ± 1.21 <sup>a,b,*</sup>              | 3.0                      |                       |                          |
| DA2C            | 14.22 ± 1.31 <sup>a,b,*</sup>              | 3.1                      |                       |                          |

Values are expressed as the means ± SD of triplicates of each batch from the same manufacturer. Brands were designated by two capital letters, followed by number 1 or 2, indicating phase 1 or phase 2 formulas. Batches were coded as A, B or C, followed by the phase numbers. Different lowercase letters superscript within the same column indicate significant differences between infant formulas at a significance level of  $p < 0.01$ . The symbol \* within the same line indicates significant differences between experimentally determined protein contents and protein label content at a significance level ( $p < 0.05$ ) when comparing individual batch.



**Figure S3.** Representative chromatogram of a mixture of bovine milk proteins and lactoferrin standards (A) and a protein fraction chromatogram from infant formulas (B). Protein standards  $\kappa$ -CN (5 min.),  $\alpha$ -La (14.1 min.),  $\alpha$ -CN (13.7-14.1 min.),  $\beta$ -CN (14.5-14.8 min.) and  $\beta$ -Lg (14.8-15 min.). In figure B: 1-TFA; 2- $\kappa$ -CN; 3- $\alpha$ -La; 4- $\alpha$ -CN; 5- $\beta$ -CN and 6- $\beta$ -Lg.



**Figure S4.** Standard curves of bovine milk protein fractions identified by HPLC.  $\kappa$ -CN (1.25 to 20 mg·mL<sup>-1</sup>),  $\alpha$ -CN (0.075 to 1.25 mg·mL<sup>-1</sup>),  $\alpha$ -LA (0.037 to 0.62 mg·mL<sup>-1</sup>),  $\beta$ -CN (0.15 to 2.5 mg·mL<sup>-1</sup>),  $\beta$ -LG (0.15 to 2.5 mg·mL<sup>-1</sup>) and lactoferrin (0.062 to 1.0 mg·mL<sup>-1</sup>).