Table S1. Questionnaire for digestive symptoms (please rate the following symptoms on a 0–3 scale)

| Symptom category | Definition | Score 0: never 1: rarely 2: frequently 3: all the time | |
|-----------------------|--|---|--|
| Bloating | Swelling often associated with a sensation of gas or air in the stomach | | |
| Burping | Bringing up air or gas from the stomach via the mouth | 0: never 1: rarely 2: frequently 3: all the time | |
| Postprandial distress | Discomfort after eating | 0: never 1: rarely 2: frequently 3: all the time | |
| Abdominal pain | Pain of discomfort of the abdomen | 0: never 1: rarely 2: frequently 3: all the time | |
| Rumbling | Vibrations or noise in the stomach | 0: never 1: rarely 2: frequently 3: all the time | |
| Borborygmus | Continuous low sound made by the movement of liquid and gas in the intestine | 0: never 1: rarely 2: frequently 3: all the time | |
| Fecal urgency | Urgent need to go to the toilet | 0: never 1: rarely 2: frequently 3: all the time | |

Table S2. Laboratory tests before and after milk consumption

| | | A2 milk | | | A1/A2 milk | | | Dualuab |
|----------|----------------|-------------------|-------------------|----------------------|-------------------|-------------------|----------------------|---------|
| | | Before | After | P-value ^a | Before | After | P-value ^a | P-value |
| Period 1 | hs-CRP (mg/dL) | 0.08 ± 0.09 | 0.10 ± 0.11 | 0.337 | 0.10 ± 0.24 | 0.10 ± 0.10 | 0.096 | 0.729 |
| | IL-4 (pg/mL) | 0.25 ± 0.00 | 0.25 ± 0.00 | | 0.25 ± 0.00 | 0.25 ± 0.00 | | >0.999 |
| | IgG (mg/dL) | 1,224.76 ± 212.04 | 1,251.88 ± 225.62 | 0.063 | 1,138.56 ± 172.65 | 1,151.11 ± 173.74 | 0.124 | 0.360 |
| | IgG1 (mg/dL) | 636.57 ± 173.94 | 650.00 ± 160.76 | 0.122 | 601.93 ± 122.05 | 606.13 ± 131.94 | 0.364 | 0.334 |
| | IgE (U/dL) | 143.65 ± 430.77 | 150.09 ± 444.53 | 0.048 | 140.17 ± 181.79 | 143.69 ± 178.12. | 0.540 | 0.409 |
| | BCM-7 (ug/mL) | 1.34 ± 1.19 | 1.52 ± 1.38 | >0.999 | 1.67 ± 1.82 | 1.83 ± 1.75 | 0.275 | 0.503 |
| Period 2 | hs-CRP (mg/dL) | 0.07 ± 0.09 | 0.06 ± 0.06 | 0.959 | 0.08 ± 0.11 | 0.06 ± 0.06 | 0.297 | 0.484 |
| | IL-4 (pg/mL) | 0.25 ± 0.00 | 0.25 ± 0.00 | | 0.25 ± 0.00 | 0.34 ± 0.37 | >0.999 | 0.331 |
| | IgG (mg/dL) | 1,147.94 ± 190.03 | 1,156.56 ± 193.27 | 0.466 | 1,245.24 ± 197.78 | 1,257.41 ± 214.43 | 0.686 | >0.999 |
| | IgG1 (mg/dL) | 606.94 ± 133.73 | 616.39 ± 135.64 | 0.249 | 651.85 ± 165.75 | 655.65 ± 176.93 | 0.645 | 0.621 |
| | IgE (U/dL) | 141.32 ± 174.85 | 141.45 ± 160.96 | 0.248 | 144.36 ± 429.40 | 142.86 ± 426.51 | 0.850 | 0.248 |
| | BCM-7 (ug/mL) | 1.75 ± 1.61 | 1.98 ± 1.54 | 0.171 | 1.35 ± 1.17 | 1.53 ± 1.12 | 0.314 | 0.826 |

Values are presented as mean ± standard deviation. Per protocol analysis. Period 1, the consumption period for the first intervention milk; Period 2, the consumption period for the second intervention milk. *P*-values were calculated using ^apaired *t*-test or Wilcoxon signed rank test, ^btwo sample *t*-test or Wilcoxon signed rank test.