Electronic Supplementary Material (ESI) for Food & Function. This journal is © The Royal Society of Chemistry 2019

Table 1: Fatty acid composition of whole almonds used for in vitro digestion determined by direct acid extraction and Folch extraction (Section 2.7). Direct acid extraction was carried out on almond powder $(10.08 \pm 0.93 \text{ mg} \text{ dry mass})$ and extractable fatty acid comprised $58.76 \pm 2.44\%$ of initial almond dry mass. Folch extraction was carried out on almond powder $(10.42 \pm 2.80 \text{ mg} \text{ dry mass})$ and extractable fatty acid comprised $54.77 \pm 2.68\%$ of initial almond dry mass. All values are means \pm standard deviation (n = 8 for direct acid extraction and n = 9 for Folch extraction).

| | Direct acid extraction | | | Folch extraction | | |
|-----------------------|--------------------------------|--|---------------------------------------|--------------------------------|--|---------------------------------------|
| Fatty acid | Mass fatty acid extracted (mg) | Percent of initial almond dry mass (%) | Percent of total fatty acid (%) | Mass fatty acid extracted (mg) | Percent of initial almond dry mass (%) | Percent of total fatty acid (%) |
| Palmitic acid (C16:0) | 0.40 ± 0.05 | 3.98 ± 0.16 | 6.74 ± 0.07 | 0.38 ± 0.11 | 3.62 ± 0.22 | 6.61 ± 0.33 |
| Oleic acid (C18:1) | 4.28 ± 0.57 | 42.32 ± 1.78 | 71.67 ± 0.35 | 3.90 ± 0.97 | 37.64 ± 2.29 | 68.79 ± 3.95 |
| Linoleic acid (C18:2) | 1.26 ± 0.17 | 12.45 ± 0.55 | 21.09 ± 0.29 | 1.40 ± 0.42 | 13.51 ± 2.56 | 24.60 ± 3.95 |

Table 2. pH of digesta. When a pH adjustment was called for by the digestion protocol (Section 2.3.1), the pH was recorded both before and after the adjustment was made. All values are means \pm standard deviation (n = 3).

| T: | | Human | | Shaking water bath |
|---------------|-----------------------|-----------------|--------------------|-----------------------|
| Time (min) | | Gastric | Shaking water bath | with only pH adjusted |
| | | Simulator | | water |
| 0 | | 2.02 ± 0.03 | 2.00 + 0.05 | 2.02 ± 0.05 |
| 1 | | 2.37 ± 0.07 | 2.17 ± 0.04 | 2.21 ± 0.11 |
| 5 | | 2.70 ± 0.11 | 2.61 ± 0.05 | 2.73 ± 0.14 |
| 15 | | 3.15 ± 0.13 | 3.14 ± 0.07 | 3.52 ± 0.22 |
| 30 | | 3.38 ± 0.13 | 3.39 ± 0.06 | 4.07 ± 0.09 |
| 60 | Before adjusting to 3 | 3.52 ± 0.17 | 3.80 ± 0.07 | 4.45 ± 0.09 |
| | After adjusting to 3 | 3.01 ± 0.03 | 3.01 ± 0.04 | 3.00 ± 0.01 |
| 120 | Before adjusting to 2 | 3.47 ± 0.13 | 3.52 ± 0.02 | 3.94 ± 0.01 |
| | After adjusting to 2 | 2.06 ± 0.01 | 2.04 ± 0.01 | 2.03 ± 0.02 |
| 180 | End of gastric phase | 2.90 ± 0.09 | 2.75 ± 0.03 | 3.00 ± 0.03 |
| | Before adjusting to 7 | 6.12 ± 0.10 | 6.27 ± 0.06 | 3.06 ± 0.02 |
| | After adjusting to 7 | 7.00 ± 0.03 | 7.02 ± 0.04 | 7.03 ± 0.03 |
| 185 | | 6.76 ± 0.07 | 6.68 ± 0.17 | 6.46 ± 0.12 |
| 195 | | 6.72 ± 0.11 | 6.80 ± 0.33 | 5.88 ± 0.11 |
| 240 | Before adjusting to 7 | 6.57 ± 0.07 | 6.70 ± 0.10 | 5.57 ± 0.08 |
| | After adjusting to 7 | 6.99 ± 0.06 | 6.93 ± 0.03 | 7.02 ± 0.03 |
| 300 | Before adjusting to 7 | 6.85 ± 0.09 | 6.95 ± 0.02 | 6.34 ± 0.10 |
| | After adjusting to 7 | 6.98 ± 0.06 | 6.96 ± 0.01 | 7.05 ± 0.01 |
| 360 | | 6.99 ± 0.05 | 7.02 ± 0.03 | 6.53 ± 0.10 |