Supplementary Material

Amino acid and secondary structure integrity of sonicated milk

proteins

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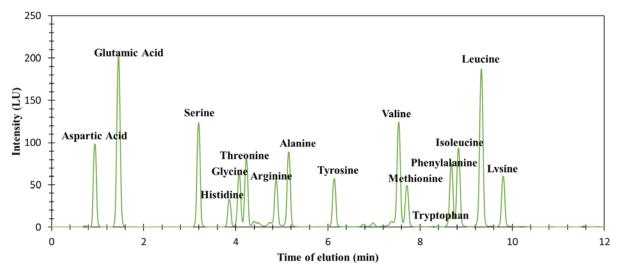


Figure S1. RP-HPLC chromatogram for amino acid composition showing temporal elution profile of amino acids in skim milk protein hydrolysate (untreated control)

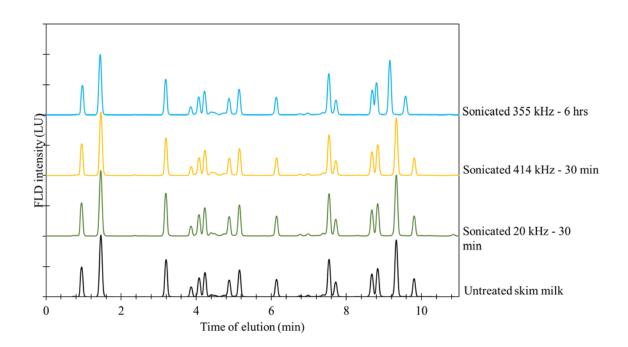


Figure S2. RP-HPLC chromatograms for amino acid composition showing no oxidative damage of amino acids in skim milk proteins treated at low (20 kHz) and high (414/355 kHz) ultrasound frequencies

Table S1. The peak areas and retention time for oxidised amino acid residues			
Amino acid	Treatment	Retention time (min)	Peak area (LU x s)*
Tyrosine	Control	6.14	250.0 ± 8
	$100~\mu M~H_2O_2$	6.14	266.2 ± 2
	100 mM H ₂ O ₂	6.14	72.2 ± 15
	$1 \text{ M H}_2\text{O}_2$	6.13	31.0 ± 2
Methionine	Control	7.71	215.5 ± 12
	$100~\mu M~H_2O_2$	7.72	235.7 ± 6
	100 mM H ₂ O ₂	7.71	25.5 ± 0
	1 M H ₂ O ₂	7.73	18.9 ± 1
Phenylalanine	Control	8.68	337.7 ± 1
	$100~\mu M~H_2O_2$	8.68	379.7 ± 2
	100 mM H ₂ O ₂	8.68	352.6 ± 23
	1 M H ₂ O ₂	8.68	132.8 ± 24

^{*}Average and standard deviation of measurements of duplicate experiments.