

SUPPLEMENTARY MATERIAL Giura et al.

Table S1. Energy content and nutritional composition of 100 g of casein cocoa dessert containing casein

Characteristics	Casein (control)
Energy (KJ/Kcal)	314 KJ/74 Kcal
Protein (g)	11.46 ± 0.5
Fat (g)	0.75 ± 0.1
Carbohydrate (g)*	4.2
Sugars (g)	3.2 ± 0.3
Fiber (g)	2.6 ± 0.5
Ash (g)	1.2 ± 0.1

* Calculated by difference

Table S2. IDDSI parameters and apparent viscosity at 50 s⁻¹ shear rate for the untreated and treated protein solutions

Samples	T ^o (°C)	Flow test (ml)	Fork Drip Test		Fork Pressure Test			Spoon Tilt Test		Spoon Pressure Test	IDDSI Level	Apparent Viscosity (mPa.s)
			<i>Drips slowly in dollops/strands through the slots of a fork</i>	<i>Pile above the fork</i>	<i>Make a clear pattern on the surface</i>	<i>When pressed with a fork the particles can be easily separated</i>	<i>Pressure from a fork held on its side can be used to 'cut' or break apart or flake this texture into smaller pieces</i>	<i>Easily pours from spoon when tilted</i>	<i>Holds shape on spoon (plop off the spoon if the spoon is tilted)</i>	<i>Pressure from a spoon held on its side can be used to 'cut' or break this texture into smaller pieces</i>		
Control (C) 10%	8	5									2	67.7 ± 0.3
C 10% + 600 MPa/5 min	8	NA		X	X				X		4	ND
C 10% + 250 MPa/ 15 min	8	6									2	103.0 ± 1.1
Control (C) 12%	8	6.5									2	192.1 ± 0.4
C 12% + 600 MPa/5 min	8	NA					X			X	6	ND
C 10% + 250 MPa/ 15 min	8	9	X					X			3	1310.4 ± 195.1
Control (C) 15%	8	9	X					X			3	1203.0 ± 98.8
C 15% + 600 MPa/5 min	8	NA					X			X	6	ND
C 15% + 250 MPa/ 15 min	8	NA		X		X			X		5	ND

C: Casein

Figure S1. Photos of the untreated and treated micellar casein solutions at different concentrations and HPP treatments

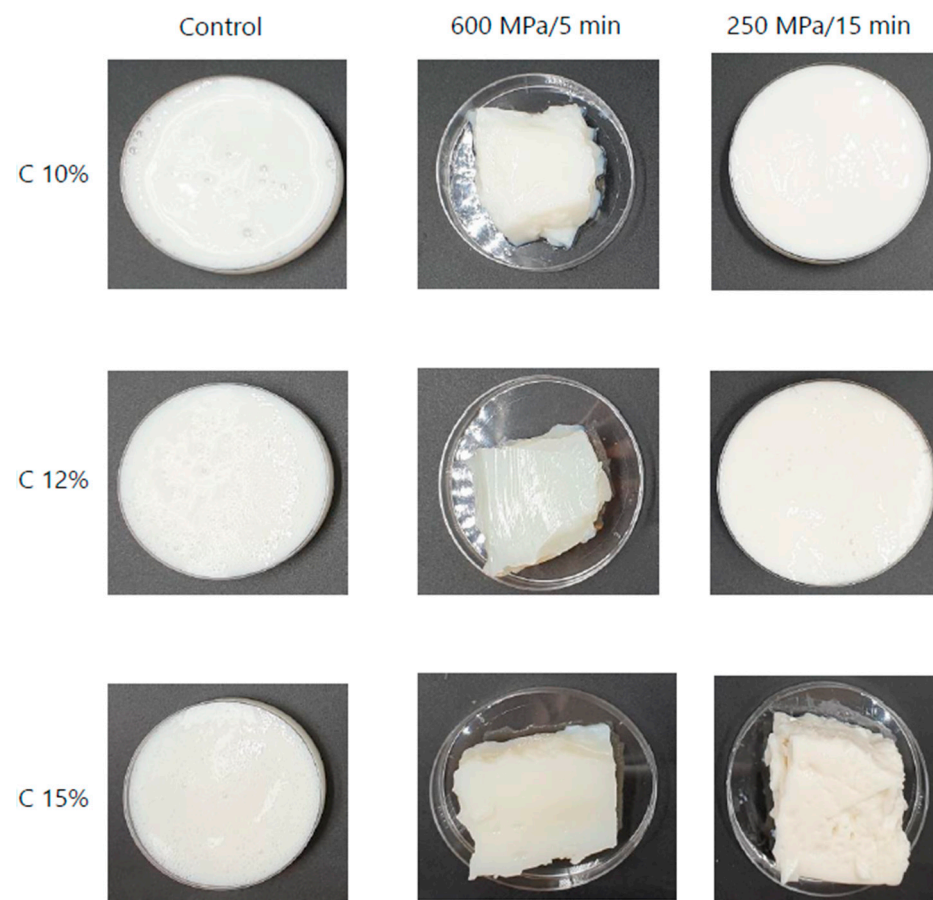


Figure S2. IDDSI measurements of the treated casein-enriched cocoa dessert



Spoon Tilt Test

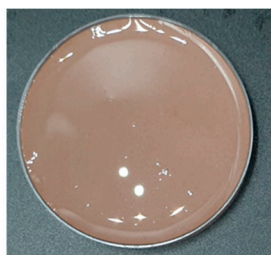


Spoon Tilt Test



Fork Drip Test

Figure S3. Photos of the untreated and treated casein-enriched cacao dessert at different sampling times



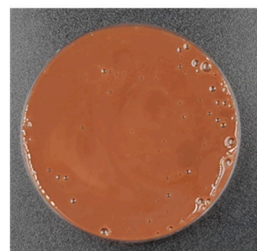
C 10% untreated dessert
Time 0



C 10% treated dessert
Time 0



C 10% treated dessert
Time 14 days



C 10% treated dessert
Time 28 days

Figure S4. Frequency sweep curves of loss tangent of control and HPP treated casein dessert formulations at different sampling time

