

Supplementary Tables

Supplementary Table 1. PIPs purchased from popular e-commerce platforms in India

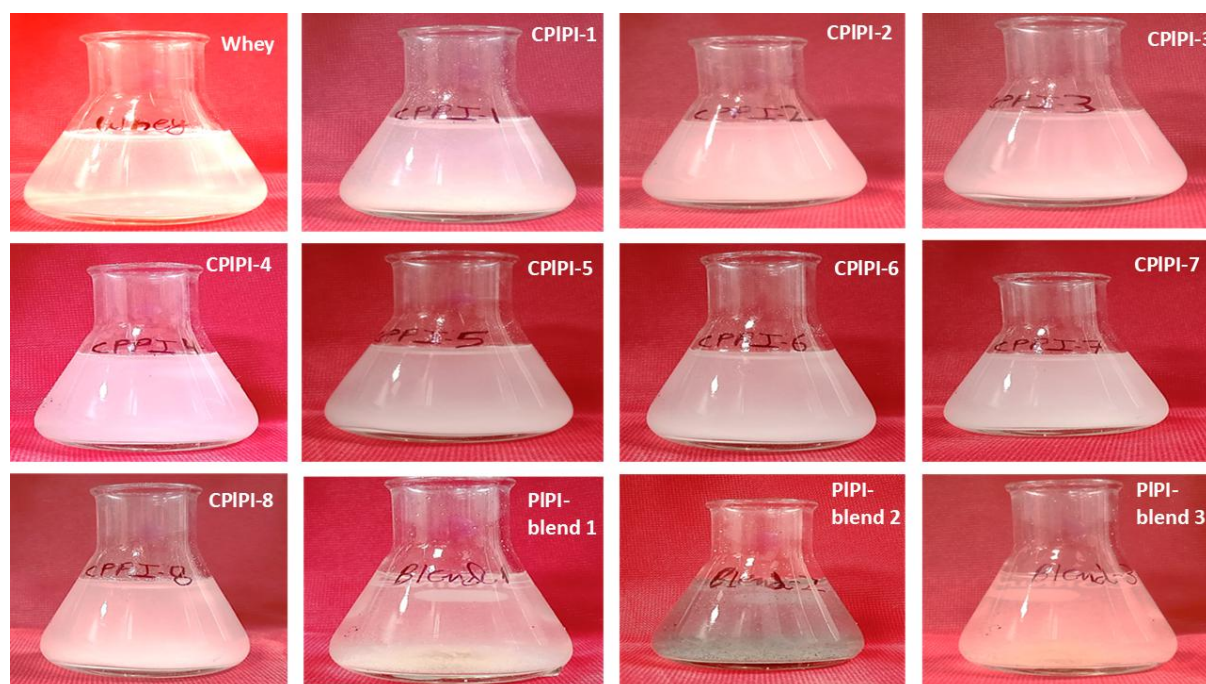
S. No	Commercial plant protein	Key ingredients
1	Whey	Whey protein isolate
2	CPIPI-1	Pea Protein, pumpkin seed proteins isolate blend
3	CPIPI-2	Organic pea, brown rice and quinoa proteins isolates blend
4	CPIPI-3	Pea protein isolates, wheat and soy proteins isolates blend
5	CPIPI-4	Pea and soy proteins isolates blend
6	CPIPI-5	Soy protein isolates
7	CPIPI-6	Pea protein isolates
8	CPIPI-7	Pea, mung bean and rice protein isolates blend
9	CPIPI-8	Pea, rice protein isolates blend

Supplementary Table 2. Soluble protein and insoluble protein fractions in whey, CPIPIs and PIPi blends

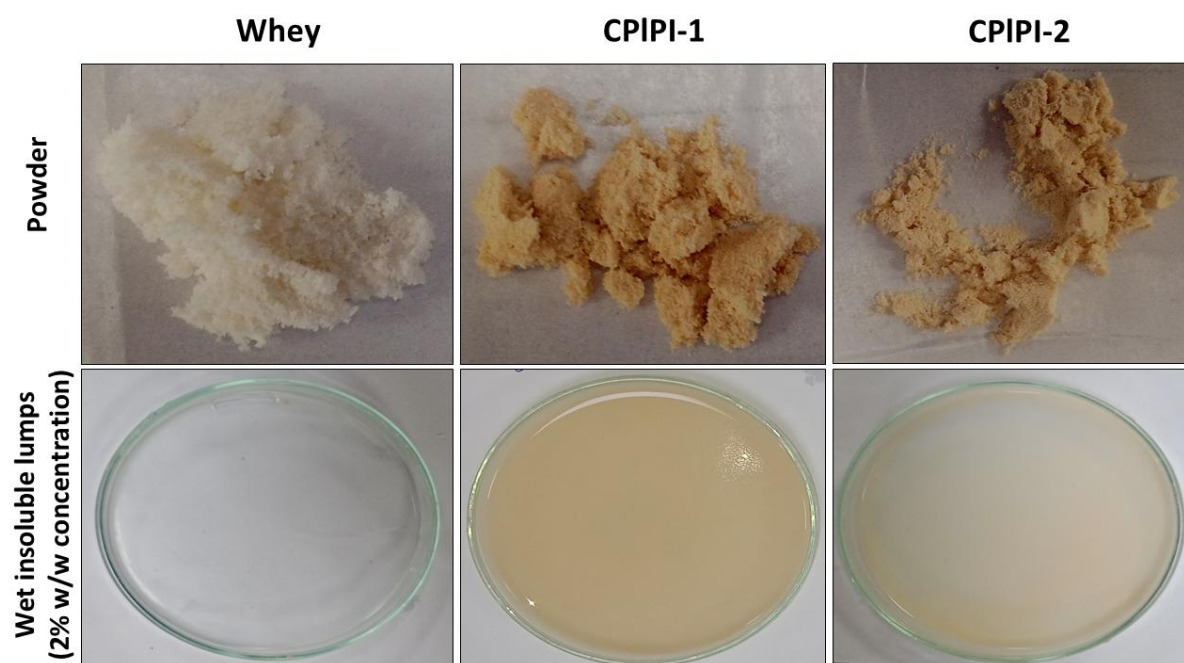
Sample	Soluble protein (%)		Insoluble protein (%)	
	pH7	pH11	pH7	pH11
Whey	39.5±0.9 ^b	60.2±0.2 ^a	42.6±0.9 ^b	21.9±0.9 ^a
CPIPI-1	21.8±0.4 ^{de}	40.2±0.1 ^d	54.6±0.5 ^{de}	36.2±0.5 ^d
CPIPI-2	20.6±0.9 ^{de}	35.8±0.4 ^f	53.5±0.9 ^{de}	38.3±0.9 ^f
CPIPI-3	25.7±0.3 ^c	40.1±0.3 ^d	56.5±0.3 ^c	42.1±0.3 ^d
CPIPI-4	1.8±0.2 ^g	2.1±0.03 ⁱ	68.6±0.2 ^g	68.3±0.2 ⁱ
CPIPI-5	20.4±0.3 ^e	37.4±0.04 ^e	63.8±0.3 ^e	46.8±0.3 ^e
CPIPI-6	22.3±0.6 ^d	35.3±0.1 ^f	69.2±0.5 ^d	56.2±0.5 ^f
CPIPI-7	21.8±0.4 ^{de}	33.6±0.6 ^g	52.6±0.4 ^{de}	40.8±0.4 ^g
CPIPI-8	17.5±0.2 ^f	30.1±0.3 ^h	55.1±0.2 ^f	42.5±0.2 ^h
PIPI Blend 1	41.9±0.6 ^a	48.6±0.1 ^b	34.1±0.6 ^a	27.4±0.6 ^b
PIPI Blend 2	39.5±0.9 ^c	47.3±0.9 ^b	36±0.9 ^c	28.2±0.9 ^b
PIPI Blend 3	43.1±0.6 ^a	48.7±0.07 ^b	33.4±0.6 ^a	27.8±0.07 ^b

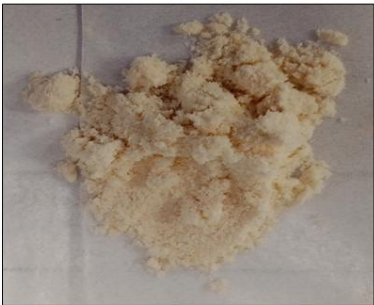
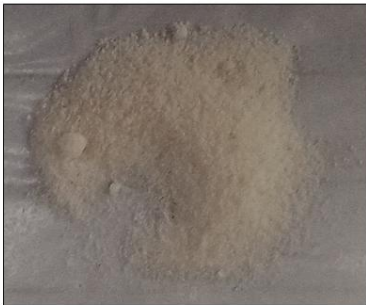
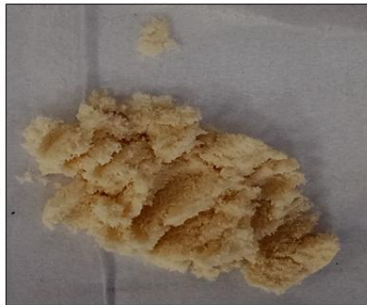
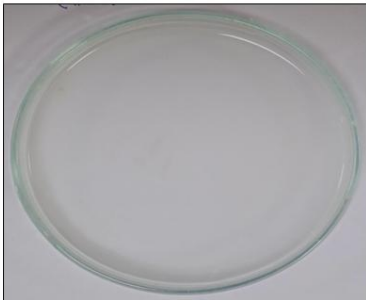
Results are represented from the total means of three replicates ± standard error. Means that do not share a letter are significantly different (p < 0.05)

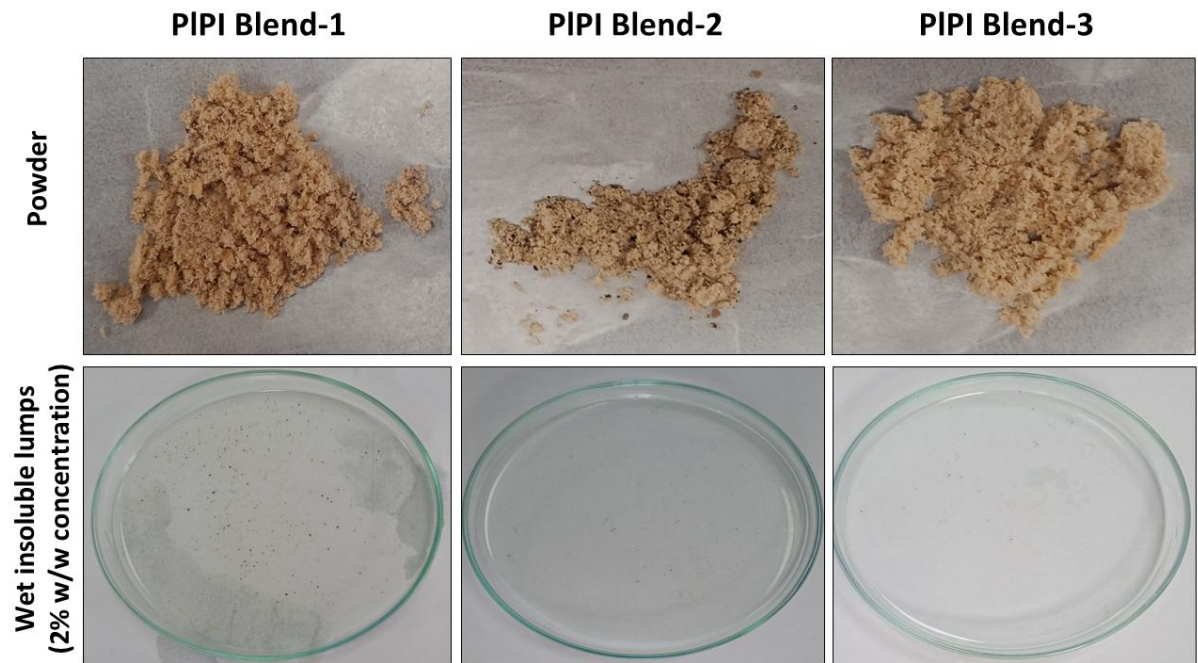
Supplementary Figures



Supplementary Fig. 1. Turbidity in whey, CPIPIs and PIPI blends.



	CPIPI-3	CPIPI-4	CPIPI-5
Powder			
Wet insoluble lumps (2% w/w concentration)			
	CPIPI-6	CPIPI-7	CPIPI-8
Powder			
Wet insoluble lumps (2% w/w concentration)			



Supplementary Fig. 2. Dry powder formulations of proteins with 2 % w/w dispersion show lump formation in some samples of whey, CPIPIs, PIPI blends.