Table S1

The extrusion parameters of soybean-based high-moisture textured vegetable protein (SH) and soybean-based low-moisture textured vegetable protein (SL) (both SH and SL were produced using a twin-screw extruder with 7 independent temperature control systems).

TVP	Barrel temperature (℃)	Feeding rate (kg/h)	Water rate (kg/h)	Moisture content (%)	Moisture content after rehydration (%)	Screw speed (rpm)	Cooling die temperature (℃)
SH	40,60,80,120, 140,135,100	3.7	4.8	61.30	/	200	70
SL	30,50,80,120, 150,150,150	3.5	1.6	27.12	60.12	250	/

Table S2

Preparation method of 400 mL simulated salivary fluid (SSF), simulated gastric fluid (SGF), and simulated intestinal fluid (SIF) with 1.25× concentrations.

	SSF (pH = 7.0)		SGF (pH = 3.0)		SIF (pH =7.0)	
Solution	Solution added volume (mL)	Final concentration in SSF (mM)	Solution added volume (mL)	Final concentration in SGF (mM)	Solution added volume (mL)	Final concentration in SIF (mM)
0.5 M KCl	15.1	15.1	6.9	6.9	6.8	6.8
0.5 M KH_2PO_4	3.7	3.7	0.9	0.9	0.8	0.8
2 M NaCl	3.4	13.6	18.05	72.2	30.85	123.4
0.15 M $MgCl_2(H_2O)_6$	0.5	0.15	0.4	0.12	1.1	0.33
0.5 M $(NH_4)_2CO_3$	0.06	0.06	0.5	0.5	/	/
1 M HCl	0.54	1.1	7.8	15.6	4.2	8.4

Note: After preparing the simulated digestive solutions, the pH of SSF, SGF and SIF were adjusted to 7.0, 3.0 and 7.0 respectively using 1 M HCl and 1 M NaOH.