Table S1. Correlation coefficients between starch structure and surimi/starch composite gels.

	M_w	M_p	$6 < X \leq 12$ (A)	$12 < X \leq 24$ (B_1)	$24 < X \leq 36$ (B_2)	$36 < X \leq 100$ (B_3)	$100 < X \leq 1000$	$1000 < X \leq 5000$	$5000 < X \leq 20000$
Hardness	0.968^{**}	0.974^{**}	0.969^{**}	0.972^{**}	0.970^{**}	-0.964^{**}	-0.969^{**}	-0.970^{**}	-0.970^{**}
Springiness	0.878^{*}	0.893^{*}	0.881^{*}	0.886^{*}	0.884^{*}	-0.877^{*}	-0.882^{*}	-0.883^{*}	-0.884^{*}
Cohesivene	0.672	0.687	0.674	0.680	0.678	-0.660	-0.673	-0.676	-0.676
Chewiness	0.944^{**}	0.951^{**}	0.945^{**}	0.949^{**}	0.947^{**}	-0.937^{**}	-0.945^{**}	-0.946^{**}	-0.946^{**}
T_{21}	0.987^{**}	0.990^{**}	0.987^{**}	0.989^{**}	0.988^{**}	-0.982^{**}	-0.989^{**}	-0.988^{**}	-0.989^{**}
T_{22}	0.995^{**}	0.998^{**}	0.996^{**}	0.996^{**}	0.996^{**}	-0.994^{**}	-0.996^{**}	-0.996^{**}	-0.997^{**}
T_{23}	-0.772	-0.773	-0.769	-0.775	-0.773	0.748	0.778	0.770	0.776
A_{21}	0.979^{**}	0.985^{**}	0.980^{**}	0.982^{**}	0.981^{**}	-0.981^{**}	-0.981^{**}	-0.981^{**}	-0.982^{**}
A_{22}	0.247	0.267	0.251	0.252	0.255	-0.246	-0.255	-0.254	-0.259
A_{23}	-0.882^{*}	-0.895^{*}	-0.885^{*}	-0.887^{*}	-0.887^{*}	0.886^{*}	0.887^{*}	0.887^{*}	0.889^{*}
WHC	0.910^{*}	0.918^{**}	0.912^{*}	0.913^{*}	0.913^{*}	-0.913^{*}	-0.911^{*}	-0.913^{*}	-0.913^{*}
α-helix	-0.713	-0.734	-0.715	-0.724	-0.721	0.697	0.722	0.718	0.723
β-sheet	-0.505	-0.474	-0.498	-0.491	-0.493	0.493	0.493	0.495	0.491
β-turn	0.602	0.574	0.597	0.590	0.591	-0.597	-0.593	-0.593	-0.589
Random	-0.637	-0.648	-0.642	-0.639	-0.642	0.660	0.641	0.643	0.643

* and ** indicate significance at $p < 0.05$ and 0.01, respectively.

Table S2. Protein secondary structures percentage of different surimi/starch composite gels. NG010, NG28, NG46, NG64, NG82, NG100 represent the surimi/starch composite gels with added mixed starch, where the mass ratio of LACCS and HACCS is 0:10, 2:8, 4:6, 6:4, 8:2, and 10:0, respectively.

Sample	Protein secondary structures content (%)			
	α-helix	β-sheet	β-turn	random coil
CK	12.28±0.41[a]	29.49±1.62[b]	47.36±2.60[a]	10.87±0.96[b]
NG100	12.39±0.64[a]	29.37±0.34[b]	46.67±0.21[ab]	11.36±0.29[b]
NG82	11.61±1.17[a]	31.52±1.58[ab]	44.57±1.06[ab]	11.83±0.33[ab]
NG64	11.86±0.67[a]	32.76±2.91[a]	43.75±3.32[ab]	11.39±0.73[b]
NG46	12.58±1.55[a]	32.58±0.71[a]	43.64±0.82[b]	11.12±0.79[b]
NG28	12.64±0.36[a]	31.25±0.75[ab]	44.14±0.78[ab]	11.96±0.32[ab]
NG010	13.08±1.06[a]	31.83±1.40[ab]	44.49±2.10[ab]	12.72±0.77[a]

Data are expressed as means ± SD from triplicate determinations. Values followed by different superscript letters in the same column are considered significantly different ($p < 0.05$).
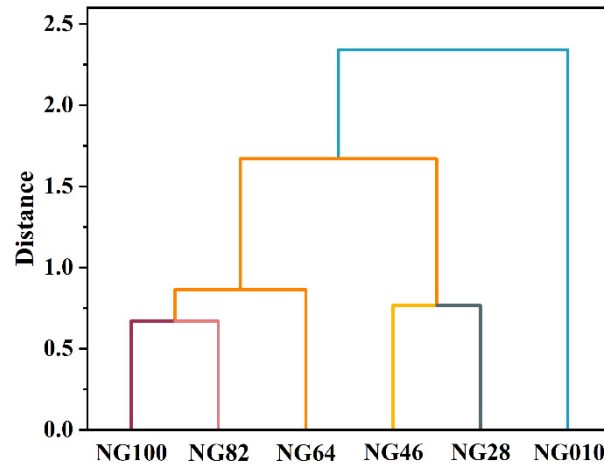
Figure S1. Cluster trend diagram of different surimi/starch composite gels. NG010, NG28, NG46, NG64, NG82, NG100 represent surimi/starch composite gels with added mixed starch at mass ratios of LACCS and HACCS at 0:10, 2:8, 4:6, 6:4, 8:2, and 10:0, respectively