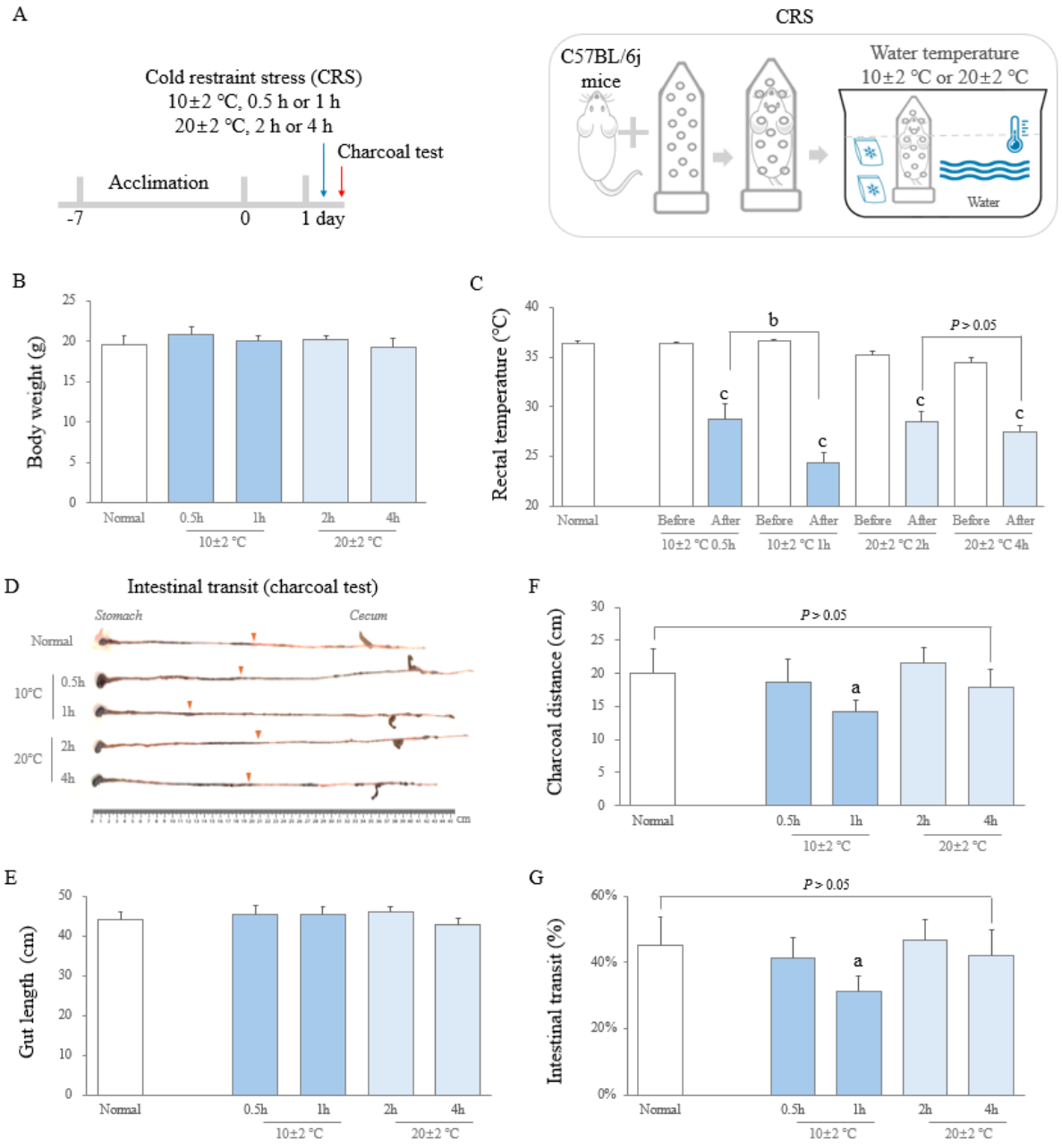

Supplementary Figure 1 Cold Sensitivity Surpasses Restraint Stress in Suppressing Intestinal Transit in Mice. (A) Experimental schedule and schematic of the cold restraint stress (CRS) model. (B) Comparison of mean body weight on the final experimental day. (C) Difference in rectal temperature between the start and 30 minutes after cold restraint stress. (D) Morphology of the stomach and intestine after intragastric administration of charcoal. $^{a}p < 0.05$ compared with the normal group; $^{c}p < 0.01$ compared with the start. $^{b}p < 0.01$ for comparison between 0.5 h and 1 h after CRS stimulation.

Supplementary Table 1 Step gradient method for paeoniflorin (RT : 17.66 min) and Shihosogan-tang

Retention time (min)	Solvent A (Water + 0.1% formic acid) [%]	Solvent B (MeCN + 0.1% formic acid) [%]
0	90	10
2	90	10
4	85	15
6	85	15
8	84	16
10	84	16
12	83	17
14	83	17
16	82	18
18	82	18
20	81.5	18.5
22	81.5	18.5
24	81	19
26	81	19
28	80.7	19.3
30	80.7	19.3
32	80.5	19.5
34	80.5	19.5
36	80.3	19.7
38	80.3	19.7
40	80	20
42	80	20
44	79.5	20.5
46	79.5	20.5
48	0	100

58	0	100
58.1	90	10
63	90	10

Supplementary Table 2 Step gradient method for liquiritin (RT : 13.81 min), Yijung-tang and Pyeongwi-san

Retention time (min)	**Solvent A (Water + 0.1% formic acid) [%]**	**Solvent B (MeCN + 0.1% formic acid) [%]**
0	90	10
2	90	10
4	80	20
6	80	20
8	77	23
10	77	23
14	76	24
16	76	24
18	75.5	24.5
20	75.5	24.5
22	75	25
24	75	25
26	73	27
28	73	27
30	70	30
32	70	30
34	68	32
36	68	32
38	65	35
40	65	35

42	60	40
44	60	40
48	0	100
58	0	100
58.1	90	10
63	90	10

Supplementary Table 3 Details and Information on Mouse qPCR Primers

Gene ID	Sequence (5′~ 3′)	Product size (bp)	AT (℃)	PrimerBank ID (Ref)
GAPDH	F: AGGTCGGTGTGAACGGATTTG R: TGTAGACCATGTAGTTGAGGTCA	123	57	6679937a1
PGC	F: CCACCTACTACACTCAAGGGC R: AACTCCTGGTTAGGGACCTGG	118	59	42375746c1
PGA5	F: TTAAGTCCATGCGTGAAAACCT R: CACGGCTTCGAGGGTACTTC	75	55	262231749c1
LIPF	F: TGTGCTATCTGCATTTGGAGG R:	156	57	13385836a1

	ACCCCCAGAATGTAGCCATCT			
5HT3R	F: ACCCAGGAGGATACCACCC R: CCCCTTCTTGTAGTTAGCCAGG	72	59	7305175a1
5HT4R	F: GATGCTAATGTGAGTTCCAACGA R: CAGCAGGTTGCCCAAGATG	105	57	l45966722c1
GPR41	F: CATGTGGTGGGCTATGTC R: TGAGTCCAAGGCACACAAG	176	55	doi:10.7150/thn.56598
GPR43	F: ACCATCGTCATCATCGTTCA R: ACGAAGCGCCAATAACAGA	185	55	doi:10.7150/thn.56598
GLP-1R	F: ACGGTGTCCCTCTCAGAGAC R: ATCAAAGGTCCGGTTGCAGAA	117	57	l1024690a1
TNF-a	F: CGGGCAGGTCTACTTTGGAG R: ACCCTGAGCCATAATCCCCT	166	60	doi: 1 10.1007/s12035-023-03842-6
IL-1β	F: TGCCACCTTTTGACAGTGATG R:	138	60	.oi: 10.1073/pnas.1705491114

	TGATGTGCTGCTGCGAGATT

AT, Anneaning temperture; GAPDH: Glyceraldehyde-3-phosphate dehydrogenase, PGC: Pepsinogen C; PGA5: Pepsinogen A5, LIPF: Lipase F, gastric type, 5HT3R: 5-Hydroxytryptamine receptor 3, 5HT4R: 5-Hydroxytryptamine receptor 4, GPR41: G Protein-Coupled Receptor 41, GPR43: G Protein-Coupled Receptor 43, GLP-1R: Glucagon-Like Peptide-1 Receptor, TNF-α: Tumor Necrosis Factor Alpha,, IL-1β: Interleukin 1 Beta