

Table S1. Survival rates of different isolates under low temperatures for 8 h and 24 h.

Isolates	Survival rates after 8 h exposure to cold		Survival rates after 24 h exposure to cold	
	(mean± standard error)/%		(mean± standard error)/%	
	-5°C	-10°C	-5°C	-10°C
YD	93.47±4.76	43.26±3.84	93.73±4.49	9.93±0.73
YC	94.62±4.21	44.55±2.73	92.99±4.10	10.02±0.79
MP	94.77±2.48	45.58±2.88	93.04±4.35	10.56±0.96
XB	94.31±3.22	43.32±1.07	94.78±3.86	10.54±1.03
HN	93.62±3.98	43.87±2.48	94.85±4.40	9.58±0.94

Table S2. ANOVA tests statistic of survival rates of different strains under low temperatures for 8 h and 24 h.

Test	Degree of Freedom	F Statistic	P Value
Group 1 ^a	59	0.39	0.97
Group 2 ^b	59	1.00	0.44
Group 3 ^c	59	0.33	0.87
Group 4 ^d	59	0.78	0.55

^a Survival rates of 5 isolates under -5°C for 8 h.

^b Survival rates of 5 isolates under -10°C for 8 h.

^c Survival rates of 5 isolates under -5°C for 24 h.

^d Survival rates of 5 isolates under -10°C for 24 h.

Table S3. Survival rates of different isolates after gradient cooling.

Minimum temperatures	Survival rates of mixed-stage nematodes		Survival rates of dispersal juveniles	
	(mean± standard error)/%		(mean± standard error)/%	
	YD	XB	YD	XB
-5°C	97.84±1.58	98.88±1.40	97.52±1.59	97.59±1.07
-7°C	96.43±1.47	97.60±1.75	97.51±1.18	97.24±1.61
-9°C	92.87±3.02	96.49±3.15	95.43±2.22	93.89±1.92
-11°C	97.02±3.09	94.72±3.27	96.44±3.74	93.73±3.45
-13°C	93.13±3.28	92.70±2.14	92.75±2.23	92.32±3.40
-15°C	92.54±3.98	94.83±3.42	93.62±3.98	92.42±2.33

Table S4. ANOVA tests statistic of survival rates of different strains after gradient cooling.

Test	Degree of Freedom	<i>F</i> Statistic	<i>P</i> Value
Group 1 ^a	71	1.74	0.17
Group 2 ^b	71	1.24	0.33
Group 3 ^c	71	1.74	0.17
Group 4 ^d	71	2.01	0.13

^a Survival rates of YD isolate mixed-stage nematodes after gradient cooling.

^b Survival rates of XB isolate mixed-stage nematodes after gradient cooling.

^c Survival rates of YD isolate dispersal juveniles after gradient cooling.

^d Survival rates of XB isolate dispersal juveniles after gradient cooling.