

SUPPLEMENTARY MATERIAL

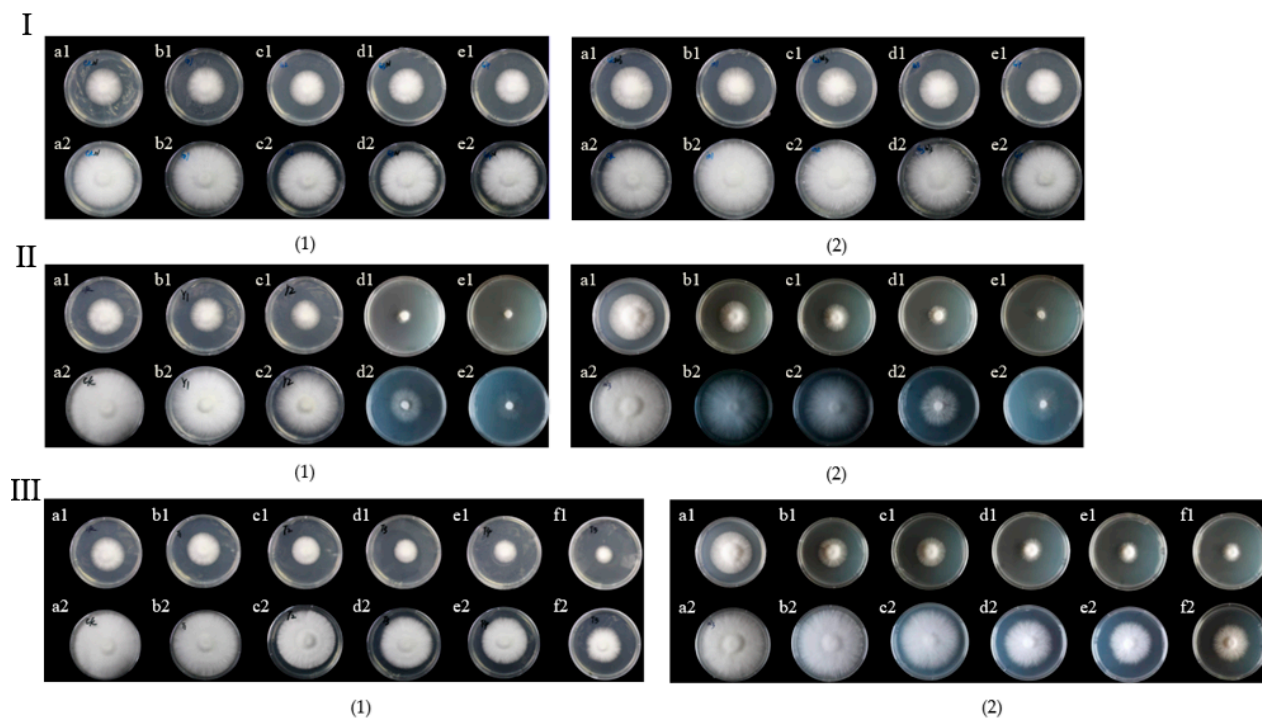


Figure S1. Effect of GABA on colony morphology of *H. marmoreus* upon addition of GABA(I), under salt stress (II) or under dehydration stress (III). (I) a1-e1 are photos of NN12 (1) and W3 (2) mycelial growth on the 7th day (medium was added with 0, 5, 10, 15, 20 mM GABA respectively), and a2-e2 are parallel photos on the 14 day; (II) a1-e1 are photos of NN12 (1) and W3 (2) mycelial growth on the 7th day (medium was added with 0, 50, 100, 150, 200, 400 mM NaCl respectively), and a2-e2 are parallel photos on the 14 day; (III) a1-e1 are photos of NN12 (1) and W3 (2) mycelial growth at the 7th day (medium was added with 0, 100, 200, 300, 400, 500 mM $C_6H_{14}O_6$ respectively) and a2-e2 are parallel photos on the 14 day.

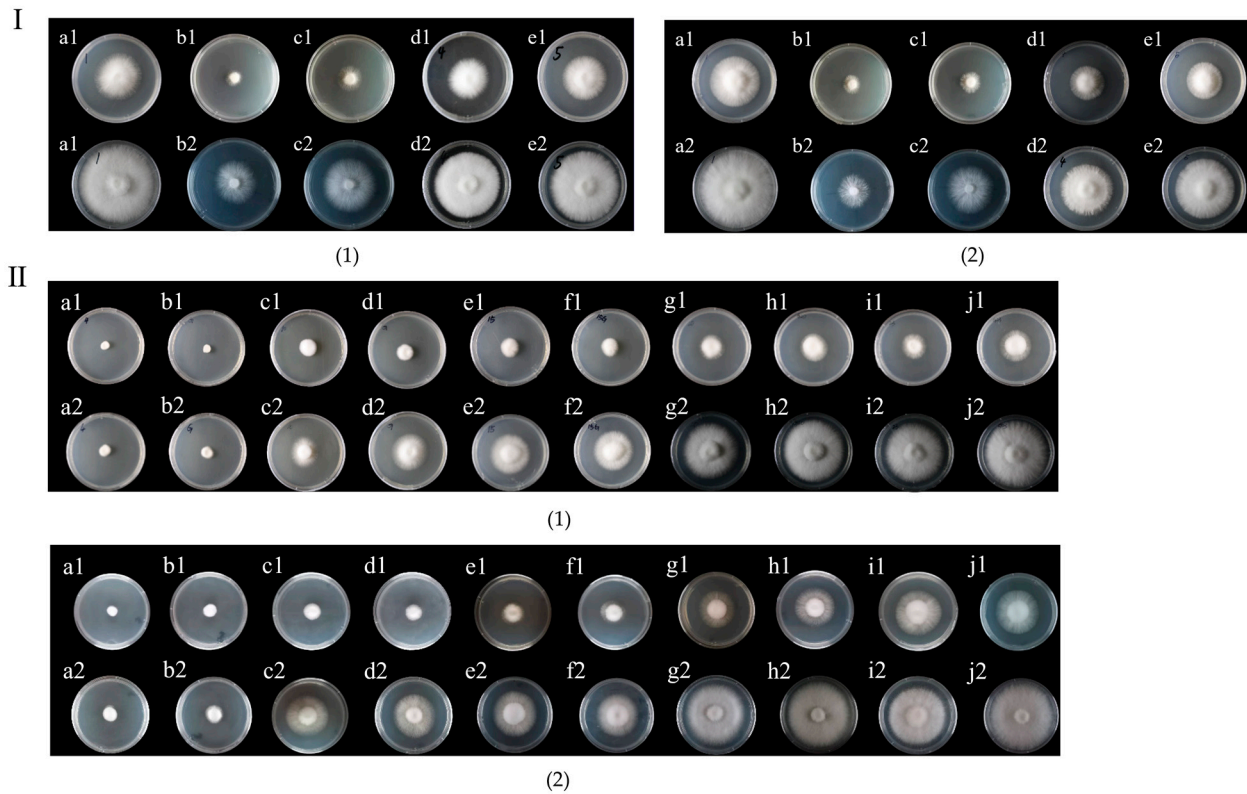


Figure S2. Effect of GABA on colony morphology under abiotic stress. (I): photos of NN12 (1) and W3 (2) mycelial growth in five groups taken on the 7th day (a1-e1) and on the 14th day (a2-e2): (a), 150 mM NaCl (b), 150 mM NaCl + 5 mM GABA (c), 300 mM C₆H₁₄O₆ (d) and 300 mM C₆H₁₄O₆ + 5 mM GABA (e); (II): photos of NN12 (1) and W3 (2) mycelial growth taken on the 7th day (a1-j1) and on the 14th day (a2-j2): a, c, e, g, i are photos of groups at 4°C, 10°C, 15°C, 20°C, and 23°C, without GABA addition; b, d, f, h, and j are photos of groups at 4°C, 10°C, 15°C, 20°C, and 23°C added with 5 mM GABA.

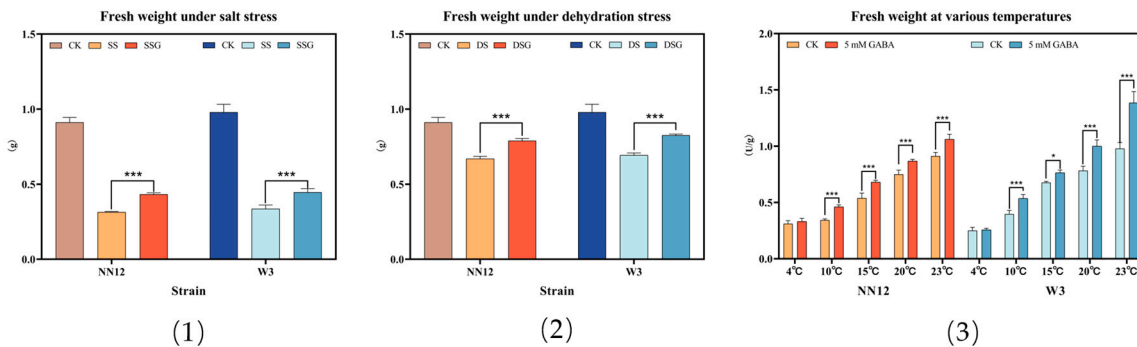


Figure S3. Effect of GABA on fresh weight of aerial mycelium under abiotic stress. (1) Fresh mycelium weight of NN12 and W3 under salt stress; (2) Fresh mycelium weight of NN12 and W3 under dehydration stress; (3) Fresh weight of NN12 and W3 mycelium at different temperatures. CK: control; SS: 150mM NaCl; SSG: 150mM NaCl + 5mM GABA; DS: 300mM C₆H₁₄O₆; DSG: 300mM C₆H₁₄O₆+5mM GABA.

Table S1. Mycelial tip diameter under salt stress and dehydration stress

Treatment group	Mycelial tip diameter(μ m)
CK	6.62 \pm 0.14 ^a
150 mM NaCl	4.55 \pm 0.07 ^b
150 mM NaCl+5 mM GABA	3.72 \pm 0.14 ^c
300 mM C ₆ H ₁₄ O ₆	5.59 \pm 0.08 ^d
300 mM C ₆ H ₁₄ O ₆ +5 mM GABA	5.27 \pm 0.15 ^e

Data are presented as means \pm SD(n=10); Different lowercase letters indicate significant differences in mycelial tip diameter (p<0.01)