SUPPLEMENTARY MATERIAL

Title:

Magnesium Hydride-Mediated Sustainable Hydrogen Supply Prolongs the Vase Life of Cut Carnation Flowers via Hydrogen Sulfide

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TABLE S1 Primer sequences used for detecting senescence-associated genes (*SAGs*) by qPCR

Gene	Accession number	Primer sequence (5'-3')
DcGST1	L05915	Forward: AGATCATAGCATCAATCACGG Reverse: CGACAAGAATACTTCACGTCG
DcbGal	CF259486	Forward: AGCTTTAGATTTGGGCAGCA Reverse: AGTAGATTTCCACGCGGTTG
DcActin	AY007315	Forward: GCACGGTATCGTCACCAACT Reverse: AGCCTTTGGGTTAAGAGGCG

FIGURE S1

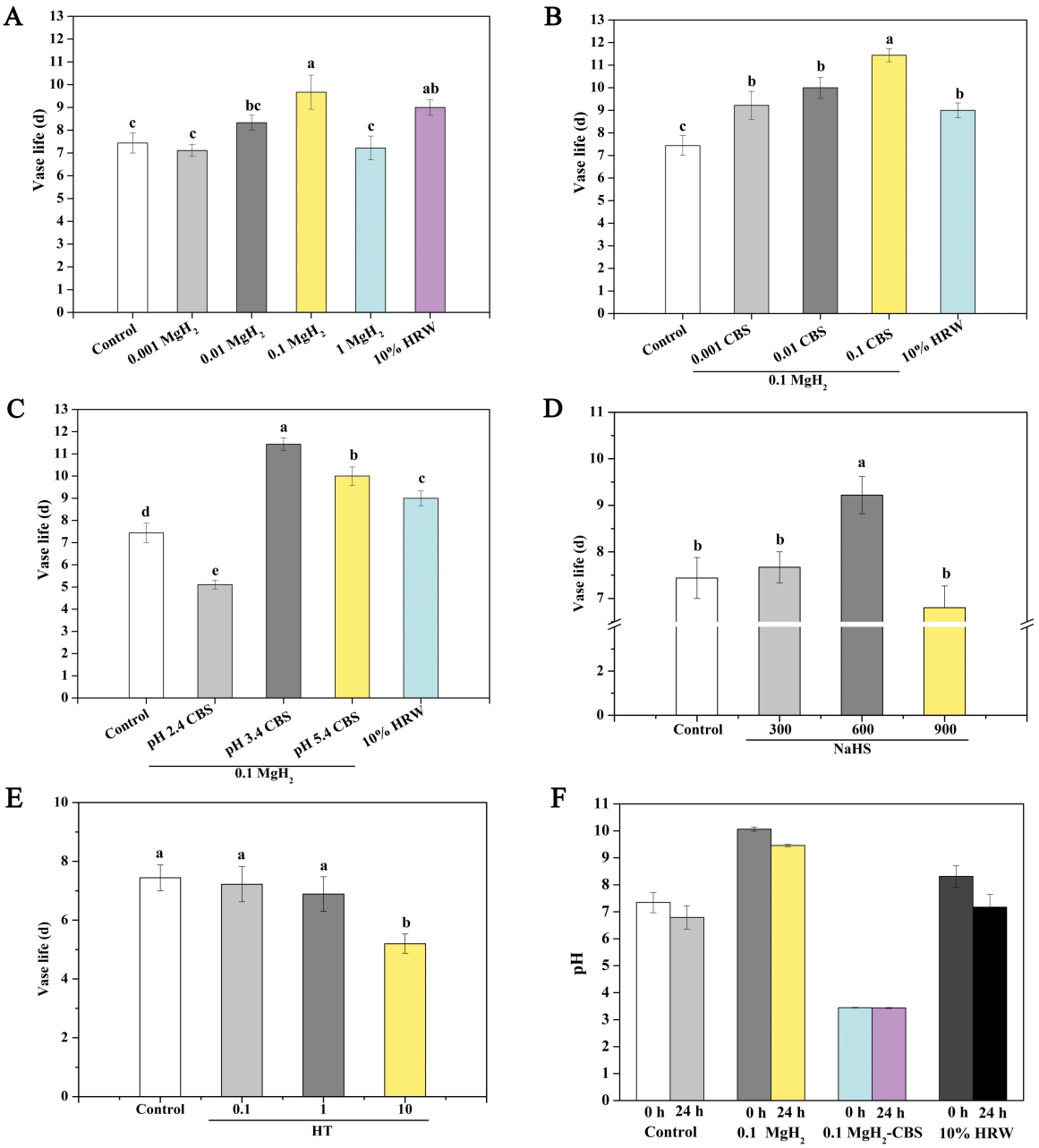

FIGURE S1 Changes in vase life of cut carnations and pH. The cut flower stems were incubated in untreated (control) and treatment solutions containing 0.001, 0.01, 0.1, and 1 g L^{-1} MgH_2, 10% HRW, 0.001, 0.01, and 0.1 M citrate buffer solution (CBS, pH 3.4) plus 0.1 g L^{-1} MgH_2, 0.1 M CBS at pH 2.4, 3.4, and 5.4 plus 0.1 g L^{-1} MgH_2, 300, 600, and 900 μM NaHS, 0.1, 1, 10 mM hypotaurine (HT) during vase period. Afterwards, vase life (**A**-**E**) and pH (**F**) in solutions were

recorded. Values are mean ± SE of three independent experiments with three replicated for each. Bars with different letters are significantly different ($P < 0.05$), as determined by Duncan's multiple range test.