

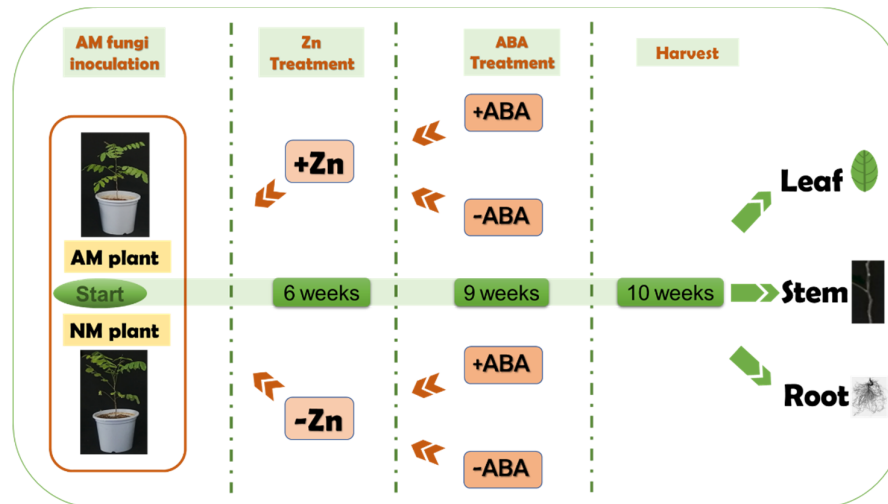
**Supporting information to:**

**The Synergy of Arbuscular Mycorrhizal Fungi and Exogenous Abscissic Acid Benefits *Robinia pseudoacacia* L. Growth through Altering the Distribution of Zn and Endogenous Abscissic Acid**

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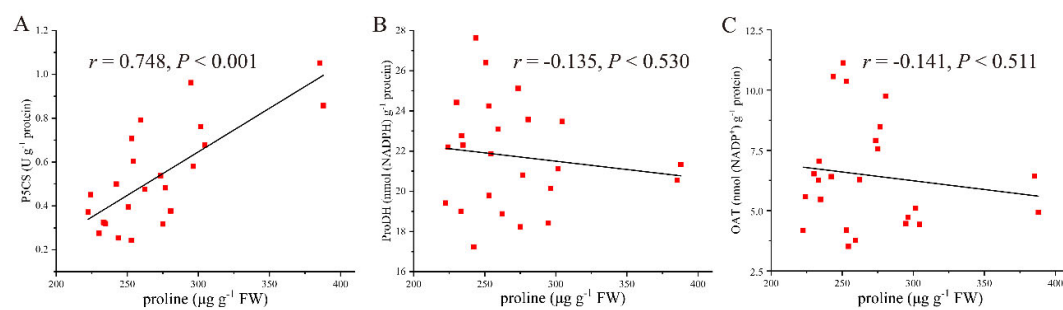


Supplementary Fig. S1 A schematic diagram illustrating the experimental design of this study. AM plant: plants inoculated with AM fungi; NM: plants inoculated without AM fungi; +Zn: 0 mg Zn kg<sup>-1</sup> soil; -Zn: 1000 mg Zn kg<sup>-1</sup> soil; +ABA: 10 μM ABA application; -ABA: 0 μM ABA application.

Table S1 Water-soluble Zn complex contents in the leaves, stems and roots.

ABA Treatment	Inoculation Treatment	Zinc Treatment	Leaves (μg g <sup>-1</sup> DW)	Stems (μg g <sup>-1</sup> DW)	Roots (μg g <sup>-1</sup> DW)
-ABA	NM	Zn0	15.47±1.11a	7.18±0.75a	2.99±0.28a
		Zn1000	280.96±0.25c	75.28±3.54d	197.88±19.03d
	AM	Zn0	11.07±0.21a	9.74±0.75a	5.90±0.99a
		Zn1000	128.50±4.44b	28.56±2.37b	97.93±7.66c
+ABA	NM	Zn0	15.17±2.06a	6.74±1.85a	4.31±2.27a
		Zn1000	305.46±12.34d	55.68±7.78c	190.31±8.87d
	AM	Zn0	11.82±1.09a	11.58±0.72a	6.25±0.86a
		Zn1000	134.93±12.98b	33.94±5.50b	62.84±1.19b
Significance					
	AMF		***	***	***
	Zn		***	***	***
	ABA		**	NS	**
	AMF*Zn		***	***	***
	AMF*ABA		NS	***	*
	ABA*Zn		*	*	**
	AMF*Zn*ABA		NS	**	NS

The data show the means  $\pm$  standard deviations ( $n = 3$ ). The different letters within each column indicate significant differences among the means of the water-soluble water Zn complex contents in the leaves, stems, and roots according to Duncan's test ( $P < 0.05$ ). Significant effects of three-way ANOVA: \*,  $P < 0.05$ ; \*\*,  $P < 0.01$ ; \*\*\*,  $P < 0.001$ ; NS, not significant. -ABA: 0  $\mu\text{M}$  ABA application; +ABA: 10  $\mu\text{M}$  ABA application; AM: AM fungal inoculation; NM: non-AM fungal inoculation; Zn0: 0  $\text{mg kg}^{-1}$  Zn treatment; Zn1000: 1000  $\text{mg kg}^{-1}$  Zn treatment. AMF: AM fungal colonization; Zn: Zn stress; ABA: ABA application.



Supplementary Fig. S2 The relationships between proline content and P5CS activity, ProDH activity, OAT activity. Pearson's correlation analysis was made at the levels of 5%.  $n = 24$ .