

**Supplementary Table S13.** Comparative mutual information ranking of regulatory factors.

Rank	Factor	MI (Rooting rate)	MI (Shooting rate)	Relative importance	Interpretation
1	6-BA × NAA	0.21	0.12	Highest	Hormone interaction is primary regulator
2	Explant type	0.18	0.17	Extremely high	Strong organ-specific effect
3	log(NAA)	0.17	—	High	Root differentiation highly auxin-dependent
4	NAA concentration	0.14	0.09	High	Auxin level influences both processes
5	BA_ratio	0.12	0.09	Moderate	Hormone balance important
6	BA/NAA ratio	0.12	—	Moderate	Relative hormone ratio affects rooting
7	NAA/BA ratio	0.11	0.10	Moderate	Ratio affects shoot and root direction
8	Total hormone (BA+NAA)	0.11	—	Moderate	Overall hormone strength contributes
9	Explant type (Petiole)	—	0.09	Moderate	Petiole promotes shooting
10	log(NAA) alternative	—	0.08	Low-moderate	Secondary auxin effect
11	NAA_ratio	—	0.07	Low	Minor influence

Note: MI, mutual information. Higher MI values indicate stronger dependency between predictor and differentiation rate.