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Title:	Characterization of an unknown gene (AT1G12030) and identification of its role in Iron deficiency response in Arabidopsis thaliana
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Abstract:	Iron is an essential micronutrient for plants, many enzymes involved in hormone biosynthesis have iron as a critical component. It is also required for chlorophyll biosynthesis, respiration, pathogen defense, nitrogen assimilation, and photosynthesis. Plants maintain iron homeostasis because both excess and deficiency of iron affect plant growth and development. Iron homeostasis is not entirely understood, and many genes involved are yet to be discovered. In this project, I tried to characterize an unknown gene, AT1G12030, which might be involved in iron homeostasis. I found that AT1G12030 overexpression improves root growth under iron deficiency conditions. Consequently, it might play a redundant role in the iron deficiency signaling pathway with a close homologue AT1G62420.
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