

New Phytologist Supporting Information

Article title: **RSL4 promotes root hair elongation by transcriptionally regulating the expression of genes required for cell growth**

Authors: Priya Vijayakumar, Sourav Datta and Liam Dolan

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The following Supporting Information is available for this article:

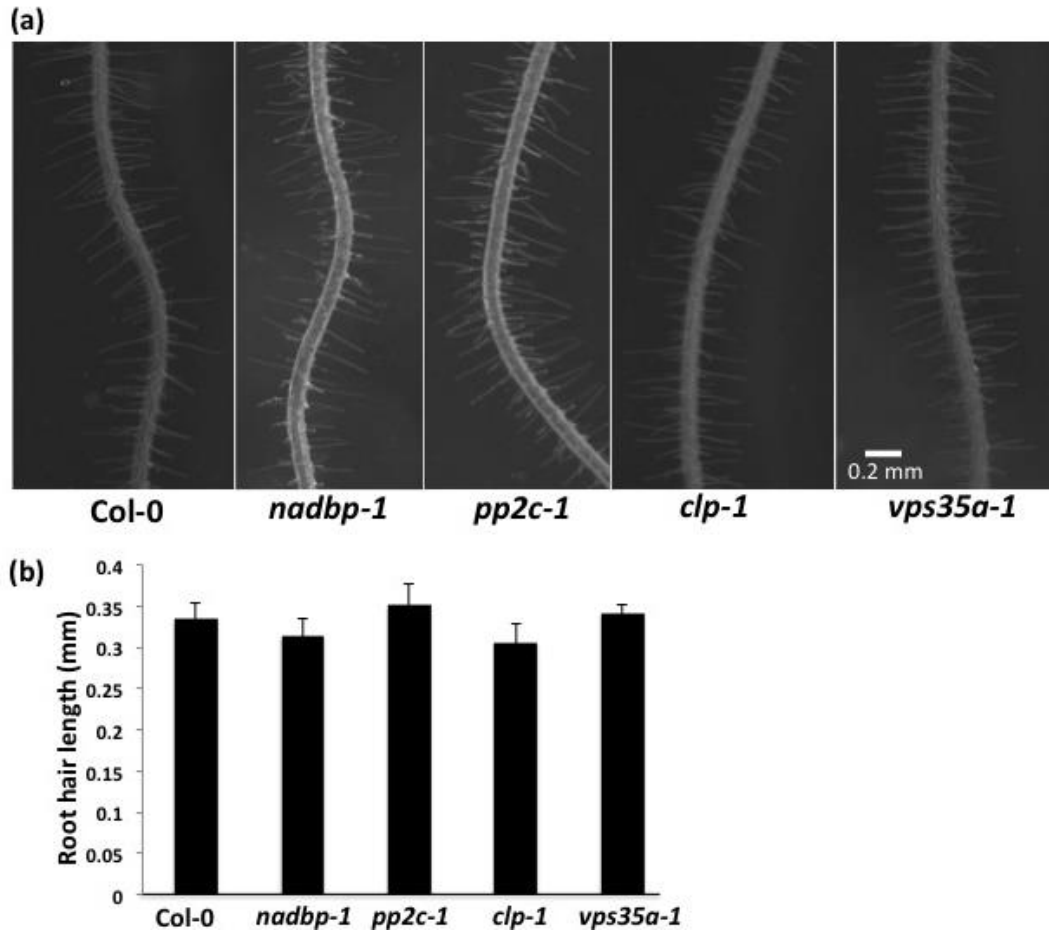


Fig. S1 (a) Images of 6-d-old *Arabidopsis thaliana* wild type Col-0, *nadbp-1*, *pp2c-1*, *clp-1* and *vps35a-1* roots grown on MS plates with 0.5% Phytigel. (b) Root hair length measurements of 6-d-old wild type (Col-0), *nadbp-1*, *pp2c-1*, *clp-1* and *vps35a-1* plants ($n = 15$). Error bars represent SEM.

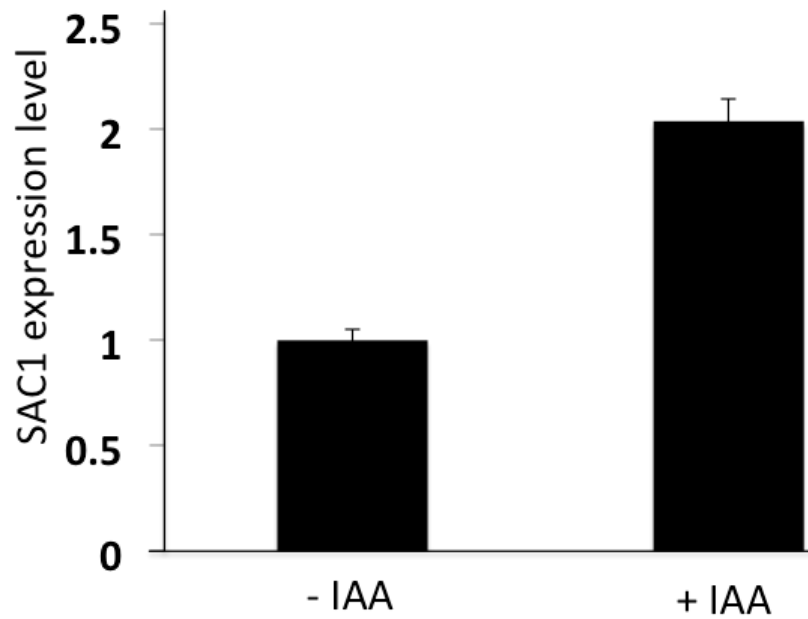


Fig. S2 SAC1 mRNA level in absence and presence of exogenously applied 100 nM IAA ($n = 3$). Error bars represent SEM.

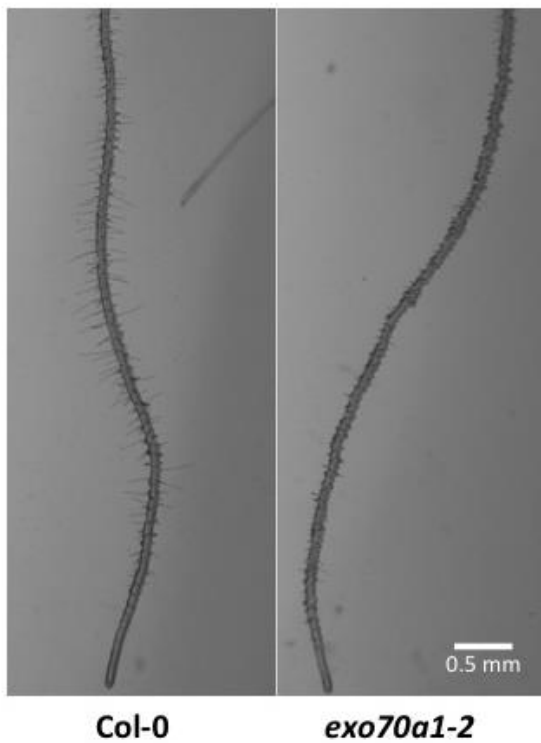


Fig. S3 Images of 6-d-old *Arabidopsis thaliana* wild type (Col-0) and *exo70a1-2* mutants with short root hairs grown on MS plates with 0.5% Phytigel.

Table S1 List of primers used in this study.

Primers used to confirm the GR: RSL4 fusion construct

Primers within the 5'UTR and promoter of *RSL4*

ATTB4: GGGGACAACCTTTGTATAGAAAAGTTGATACGCGTTGGGCTTAAATG

ANTI578: CCTAAAACCTAAACGCGGTG

Primers within the CDS+3'UTR of *RSL4*

RDL2 KpnI: CGGGGTACCATGGACGTTTTTGTGATGGT

RDL2 BamHI: CTTTTGTCTCGGCTTATGTGAGGATCCGCG

Primers within the GR sequence:

GR forward: CAAAGGGATTCAGCAAGCCAC

GR reverse: CCTTACCTACTGCTTCCAGACATTT

Table S2 1022 genes in *Arabidopsis thaliana* that were expressed more than twice as high in DEX treated *GR:RSL4 rsl2 rsl4* plants than in mock treated plants with a *P* value < 0.0001. (See separate Excel file.)

Table S3 259 genes in *Arabidopsis thaliana* that were expressed more than twice as high in DEX+CHX treated *GR:RSL4 rsl2 rsl4* than in mock treated plants with a *P* value < 0.001. (See separate Excel file.)

Table S4 130 genes in *Arabidopsis thaliana* whose expression was increased by more than two-fold in both DEX and DEX+CHX treated *GR:RSL4 rsl2 rsl4* plants compared to mock treatment. (See separate Excel file.)

Table S5 List of mutants used in this study with details of T-DNA insertions

Mutant alleles	Gene name	Gene code	Insertion code
<i>gbf2-2</i>	GBF2	AT4G01120	SALK_206654
<i>exo70a1-1, exo70a1-2</i>	EXO70A1	AT5G03540	SALK_014826, SALK_135462
<i>nadbp-1</i>	NADBP	AT1G01800	SALK_009967
<i>pp2c-1</i>	PP2C	AT3G17090	SALK_203806
<i>clp-1</i>	CLP	AT1G26940	SALK_054035
<i>cpk11-2</i>	CDPK2/CPK11	AT1G35670	SALK_054495
<i>prx7-1</i>	PRX7	AT1G30870	GK_476A09-019131
<i>vps35a-1</i>	VPS35B/ LAZ4	AT1G75850	SALK_014345
<i>sac1-2</i>	SAC1	AT1G22620	SALK_070875