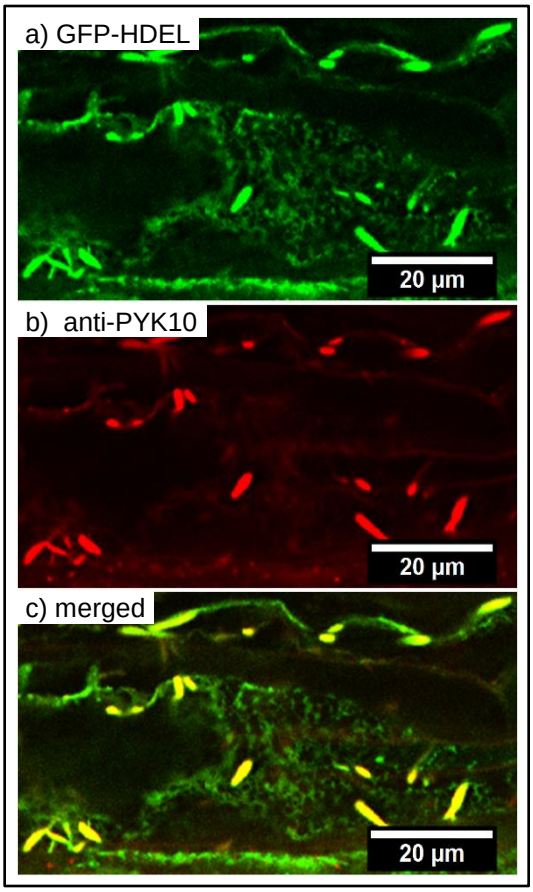


S1. Immuno-fluorescent staining of root epidermal cells of *Arabidopsis* seedlings expressing GFP-HDEL with anti-PYK10 antibodies imaged by confocal microscopy

GFP-HDEL fusion strongly labels ER bodies and the ER (a), whereas the anti-PYK10 antibodies coupled to TRITC label only ER bodies (b). Merging both channels reveals that GFP-HDEL and PYK10 colocalize (yellow; see (c)).

Length

Contrast		P value	Significant
Untreated	MeJA-72h - long ER bodies	< 0.0001	yes
Untreated	MeJA-72h - small ER bodies	0.480	no
MeJA-72h - long ER bodies	MeJA-72h - small ER bodies	< 0.0001	yes

Diameter

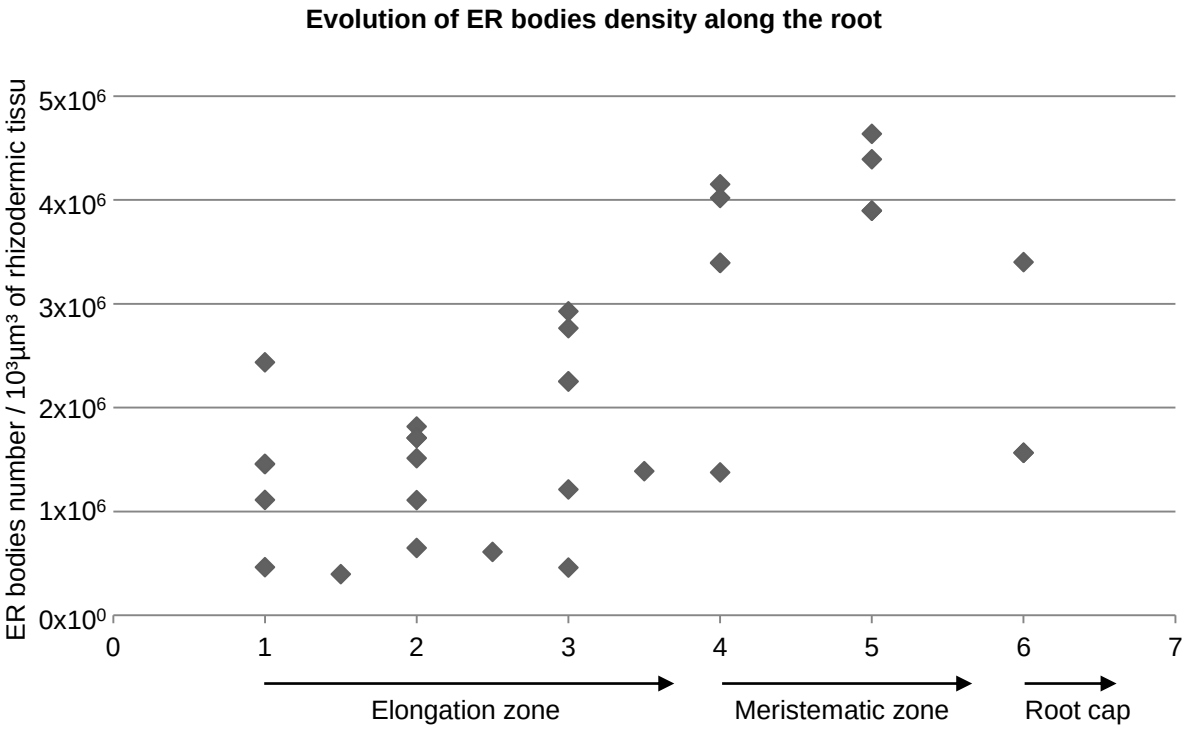
Contrast		P value	Significant
Untreated	MeJA-72h - long ER bodies	< 0.0001	yes
Untreated	MeJA-72h - small ER bodies	0.611	no
MeJA-72h - long ER bodies	MeJA-72h - small ER bodies	< 0.0001	Yes

Density

Contrast		P value	Significant
Untreated	MeJA-72h - long ER bodies	0.005	yes
Untreated	MeJA-72h - small ER bodies	< 0.0001	yes
MeJA-72h - long ER bodies	MeJA-72h - small ER bodies	< 0.0001	yes

S2. Statistical analysis results

All the data were analyzed using pair wise comparison by Tukey's method.



S3. ER bodies distribution along the root apex

ER bodies density is not linear along the root, in fact it increases from the elongation zone to get its maximum in the meristematic zone and then decreases in the root cap.

Each point correspond to one measurement.

Root parts: 1 to 3 = elongation zone; 4 and 5 = meristematic zone; 6 = root cap.