







43

T0 comments

4/5 seeds show bright expression in the scutellum.

T1 seedling comments

Note the bright stomata in pictures 2 and 3.

AOV A05 •

Stereo Pics

FST





Confocal root pattern Epidermis Cortex Endodermis Pericycle \boxtimes Vascular tissues Root cap Apical meristem Quiescent center Proximal meristem

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Confocal notes

Definitely an epidermal line in mature lateral roots, however, there is a single file of cells in central vascular that is also bright (picture 1-3). This inner expression seems to die out further away from the tips, and then the expression becomes strictly epidermal (see picture 4). In some older portions of roots, cross sections reveal something faintly GFP in the interior of the root (picture 5), maybe something vascular, or maybe this is actually epidermal expression due to incomplete cross sectioning. The young lateral roots (there were only a few, pictures 6 and 7) looked very different from the older roots. Here the expression pattern looked far more vascular and not very epidermal at all. Perhaps the expression changes as the roots mature, or perhaps there are two types of lateral roots?













T0 comments

T1 seed comments

T1 seedling comments

Expression specific to the root. Bright in the tip of crown and lateral roots. Although brighter in tips, it looks like quite general expression throughout the root. Perhaps an epidermal pattern?

AOH B03



Stereo Pics

FST



Confocal root pattern	
⊠Epidermis	
⊠Cortex	
Endodermis	
Pericycle	
Vascular tissues	
Root cap	
Apical meristem	
Quiescent center	
Proximal meristem	

Confocal notes

Definitely an epidermal pattern in the crown root tips (pics 1-3), although there may be fainter expression in the underlying cortex as well (especially pic 2). In the lateral root tips (pics 4-6) the expression in epdermis is quite faint while cortical expression is extremely bright. As with the crown roots, the root expression appears to be extra-stelar.

Cross-sections of mature lateral roots (pic 7) again shows very bright cortical expression. Cross-sections of mature crown root (pic 8) shows bright epidermal expression, with the underlying cortical cells most likely also expressing although the thickness of these roots makes it nearly impossible to verify by confocal.

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Trichomes

Guard cells









Mesophyll





T1 seed comments

3/5 seeds had expression.

T1 seedling comments

Very bright expression in the root cap.

AOL D01

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Confocal root pattern

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Confocal notes

Bright, distinct root cap expression. Picture 3 is a compilation of sectioning through a whole root tip, whereas 1, 2, 5 and 6 are cross sections of root tips. Picture 4 shows what I believe to be epidermal expression in the the older part of a lateral root, just before it attaches to the crown root. Picture 7 is an attempt at sectioning through a thick crown root, the fluorescence could just be autofluorescence of dead cells on the surface I think.



















45

5



Expression in the collar and surrounding vascular of sheath and leaf.

T1 seed comments

T1 seedling comments

Bright roots, especially in the tips in what I think is the root apex.

8





Stereo Pics

FST







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Confocal notes

Interesting expression in root tips, specific to the young root cap (pictures 1-3). This is different than the other root cap expression patterns observed previously. Also expression specific to the vascular in the crown roots and the older portion of lateral roots (picture 4).













T0 comments

T1 seed comments

T1 seedling comments

Mostly expression in the lateral roots--looks like could be cortical expression (see pic 4)? Should do confocal.



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Confocal root pattern



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Confocal notes

Endodermal expression throughout the roots, however, there is some expression in the very early cortical cells in tip (best seen in picture 2).













92



T0 comments

Moderate expression in the collar, weak in the sheath vascular.

T1 seed comments

T1 seedling comments

Moderate expression in collar. Vascular expression in the roots.



Stereo Pics

FST

