Additional file 5: Reference gene selection for RT-qPCR gene transcription studies. (a) microarray identification of differential expression of genes commonly used as references in root and leaf tissues of AtHMA4-expressing (L.4) and wild-type 17-day-old tomato plants grown in the presence of 5 µM Zn; (b) transcription level of actin (ACT), tubulin (TUB), and cyclophilin (CyP) in the epidermis+cortex and stele of roots from AtHMA4-expressing (L.4) and wild-type 24-day-old tomato plants grown in the presence of 5 µM Zn; (c) Relative expression of cyclophilin in the epidermis+cortex and stele of roots from AtHMA4-expressing (L.4 and L.15) and wild-type 24-day-old tomato plants grown in the presence of 0.5 µM Zn; (d) Relative expression of cyclophilin in epidermis+cortex and stele of roots from AtHMA4-expressing (L.4 and L.15) and wild-type 24-day-old tomato plants grown in the presence of 1 µM Cd; (e) Relative expression of cyclophilin in palisade parenchyma + upper epidermis and spongy parenchyma + lower epidermis of leaves from AtHMA4-expressing (L.4 and L.15) and wild-type 17-day-old tomato plants grown in the presence of 5 µM Zn. The relative expression level was calculated for 172 pg of cDNA template used in the reaction. All accessions numbers are from NCBI.

(a)

<table>
<thead>
<tr>
<th>Leaves</th>
<th>L.4 vs WT EPP</th>
<th>L.4 vs WT ESP</th>
<th>L.4 ESP vs EPP</th>
<th>WT ESP vs EPP</th>
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</thead>
<tbody>
<tr>
<td>Gene</td>
<td>Fold-Change</td>
<td>Gen</td>
<td>Fold-Change</td>
<td>Gen</td>
</tr>
<tr>
<td>AAB51592 glyceraldehyde 3-phosphate dehydrogenase [Lycopersicon esculentum]</td>
<td>2.24799</td>
<td>CAA51679 ubiquitin [Solanum lycopersicum]</td>
<td>-1.75594</td>
<td>P17786 RecName: Full=Elongation factor 1-alpha; Short=EF-1-alpha</td>
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<tr>
<td>P17786 RecName: Full=Elongation factor 1-alpha; Short=EF-1-alpha</td>
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<td>-1.3514</td>
<td>P17786 RecName: Full=Elongation factor 1-alpha; Short=EF-1-alpha</td>
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<table>
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<tr>
<th>Roots</th>
<th>L.4 vs WT EC</th>
<th>L.4 vs WT S</th>
<th>L.4 EC vs S</th>
<th>WT EC vs S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen</td>
<td>Fold-Change</td>
<td>Gen</td>
<td>Fold-Change</td>
<td>Gen</td>
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</tbody>
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