

Supplementary Material

Transcriptional regulation of phosphate transporters from *Lolium perenne* and its mycorrhizal symbionts in response to phosphorus supply

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Table S1. Primer sequences used in this study

Primer name	Target gene	Sequence (5' to 3')	Amplicon (bp)	Reference
LpPT-3'	Isolating 3'-end LpPT1	CTCTTCTGCATCTCCCTCGT		This study
LpPT-5'	Isolating 5'-end LpPT1	AAGAAGGTGAGGCCGTAGAG		This study
FL_LpPT_F FL_LpPT_R	Isolating full length LpPT1	CGCGGGGACACAACAAGAAAGCTA ACATGAATCAAATCATTGATTTCA		This study
LpPT_F LpPT_R	qPCR L. perenne LpPT1	CTCTTCTGCATCTCCCTCGT ATGAGGATGAGCGTGAAACC	209	This study
LpActin-F LpActin_R	qPCR L. perenne LpActin	TGGACTCTGGTGATGGTGTC GCTTCTCCTTGATGTCCCTTAC	188	AY014278
GmosPT_F GmosPT_R	qPCR G. mosseae GmosPT	ACGTGAAGTCGATGAACCAG CATGACACCGCAGTACCAAC	119	DQ074452
GiPT_F GiPT_R	qPCR G. intraradices GiPT	GGTGTCGGTATTGGAGGAGA ACCGAGCACTATACGCCAAC	219	AF359112
VANS1_F VAGLO_R	qPCR Glomus spp. 18S rDNA	GGTGTCGGTATTGGAGGAGA ACCGAGCACTATACGCCAAC	188	Simon et al. 1993

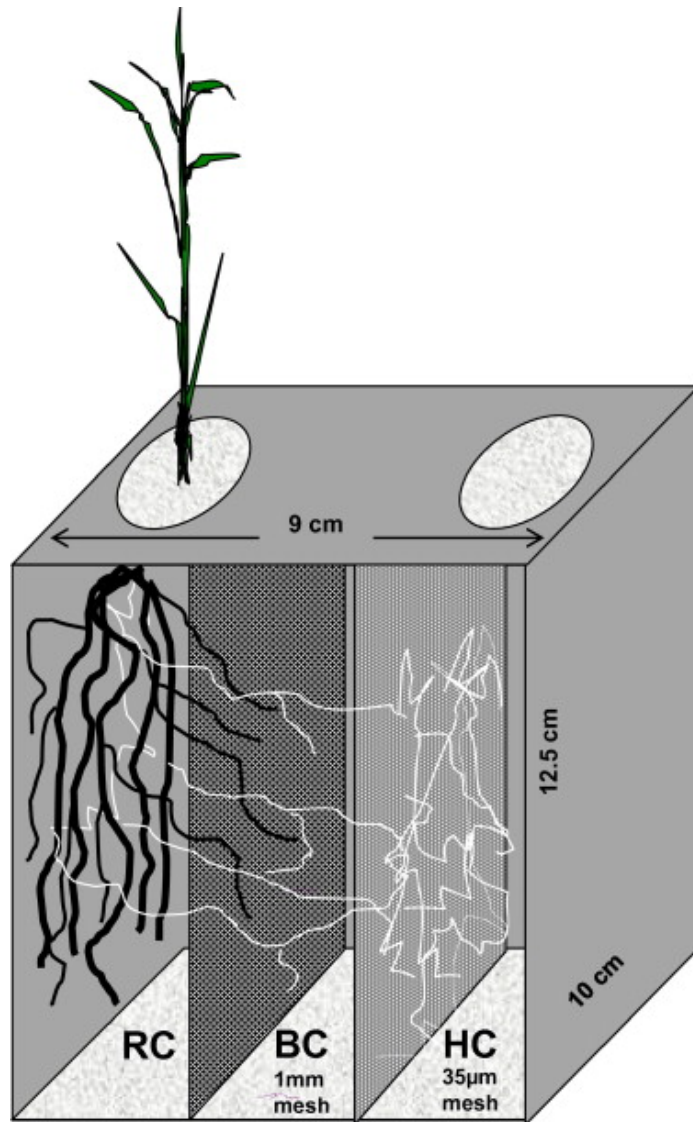


Fig. S1. An illustration of the three-compartment pot used in this study to separate intra- and extraradical hyphae from *F. mosseae* infected *L. perenne* plants grown at different P levels. Mycorrhizal roots are depicted in black and extraradical hyphae in white. RC – root compartment; BC – buffer compartment; and HC – hyphal compartment.

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Lolium perenne      MAGEQLNVLKALDQAKTQWYHFTAVVIAGMGFFTDAYDLFCISLVTRLLGRIYYTEAGSN 60
Triticum aestivum  MATEQLNVLKALDVAKTQLYHFKAIVVIAGMGFFTDAYDLFCIALVTKLLGRIYYTDPALN 60
Hordeum vulgare    MATEQLNVLKALDVAKTQLYHFKAIVVIAGMGFFTDAYDLFCIALVTKLLGRIYYTDPALN 60
Oryza sativa       MADGQLKVLTTLDHARTQWYHFMAIIVIAGMGFFTDAYDLFCISLVSKLLGRIYYTDLAGD 60
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Lolium perenne      EPGHLPANVSAAVNGVALCGTLAQQLFFGWLGDKLGKRSVYGFLLILMVLCSIASGLSFG 120
Triticum aestivum  EPGHLPANVSAAVNGVALCGTLAQQLFFGWLGDKLGKRSVYGFLLILMVLCSIASGLSLG 120
Hordeum vulgare    EPGHLPANVSAAVNGVALCGTLAQQLFFGWLGDKLGKRSVYGFLLILMVLCSIASGLSFG 120
Oryza sativa       NPGSLPPNVSAAVNGVALCGTLAQQLFFGWLGDKLGKRSVYGFLLVLMVVCVSVASGLSFG 120
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Lolium perenne      HEAKGVIGTLCFFRFWLGFGVGGDYPLSATIMSEYANKKTRGTFIAAVFAMQGGFGLFGT 180
Triticum aestivum  HEAKGVMGTLCFFRFWLGFGVGGDYPLSATIMSEYANKKTRGTFIAAVFAMQGGFGLFGT 180
Hordeum vulgare    HEAKGVMGTLCFFRFWLGFGVGGDYPLSATIMSEYANKKTRGTFIAAVFAMQGGFGLFGT 180
Oryza sativa       RTAKGVVATLCFFRFWLGFGVGGDYPLSATIMSEYANKRTRGAFIAAVFAMQGGFGLFGA 180
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Lolium perenne      IVTIVSSAFRNAPAPPFYVDATSSIGPEADYVWRIIVMFGTIPAALTYWRMKMPETA 240
Triticum aestivum  IVTIVSSAFRNAPAPPFYIDAASIGPEADYVWRIIVMFGTIPAALTYWRMKMPETA 240
Hordeum vulgare    IVTIVSSAFRNAPAPPFYIDAASIGPEADYVWRIIVMFGTIPAALTYWRMKMPETA 240
Oryza sativa       IVALVVSAGFRNAYPAPSYADGRAASLVPEADYVWRIILMFGTIPAALTYWRMKMPETA 240
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Lolium perenne      RYTALITRNTKQATADMSRVLNKIDITEEEKVLQVQAS--GDTWGLFSRQFMSRHLHLL 298
Triticum aestivum  RYTALIAGNTKQATSDMSKVLNKEISEEN--VQGERAT--GDTWGLFSRQFMKRHGVLHLL 296
Hordeum vulgare    RYTALIAGNTKQATSDMSKVLNKEISEEA--GQGERAT--GDTWGLFSRQFMKRHGVLHLL 296
Oryza sativa       RYTALIARNAKQAAADMSKVLDTIEIQEDADRAEVAAGGAGNEWGLFSRQFVRRHGVLHLLV 300
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Lolium perenne      ATTSTWFLLDVAFYSQNLFQKDIPTKVGWIPPARTMSALEELYRIARAQALIALCGTVPG 358
Triticum aestivum  ATTSTWFLLDVAFYSQNLFQKDIPTKIGWIPPAKTMNALEELYRIARAQALIALCGTVPG 356
Hordeum vulgare    ATTSTWFLLDVAFYSQNLFQKDIPTKIGWIPPAKTMNALEELYRIARAQALIALCGTVPG 356
Oryza sativa       ATTSTWFLLDIAFYSQNLFQKDIPTKVGWIPPARTMNAVEEVFRARAQALIALCGTIPG 360
*****:*****:*****:***:*****:***:***:*****:*****:***

Lolium perenne      YWFTVAFIDIIGRFWIQLMGFAMMTIFMLAIAVPDYDLVKPGHHTGFVLYGLTFFANF 418
Triticum aestivum  YWFTVAFIDIIGRFWIQLMGFTMMTIFMLAIAIPDYDLVKPGHHTGFVVLYGLTFFFANF 416
Hordeum vulgare    YWFTVAFIDIIGRFWIQLMGFTMMTIFMLAIAIPDYDLVKPGHHTGFVVLYGLTFFFANF 416
Oryza sativa       YWFTVAFIDVAGRFAIQLMGFAMMTIFMLGLAAPYHHWTPGNHTGFVVMYGFTFFANF 420
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Lolium perenne      GPNSTTFIVPAEIPPARLRSTCHGVSAAAGKAGAIIGAFGFLYASQDQKPKDGYSGIG 478
Triticum aestivum  GPNSTTFIVPAEIPPARLRSTCHGISAAATGKAGAIIGAFGFLYASQDQKPKPETGYSRGIG 476
Hordeum vulgare    GPNSTTFIVPAEIPPARLRSTCHGISAAATGKAGAIIGAFGFLYASQDQKPKPETGYSRGIG 476
Oryza sativa       GPNATTFIVPAEIPPARLRSTCHGISAAAGKAGAIIGAFGFLYAAQDPHKPEAGYKPGIG 480
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Lolium perenne      MRNALFVLAGTNFLGLLFSLLVPESKGRSLEEISKENYDDDATITPAGA 527
Triticum aestivum  MRNALFVLAGTNFLGLLFSLLVPESKGKSLEESKENYGDDDITIVPTGV 525
Hordeum vulgare    MRNALFVLAGTNFLGLLFSLLVPESKGKSLEESKENYGDDDDAIAPTGV 525
Oryza sativa       IRNALFVLAGTNFLGMLTLLVPESKGMSLEEVSKENYVADDEEATA--- 526
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Fig. S2. Alignment of the deduced LpPT protein sequence with PT proteins from *T. aestivum* (Acc.# CAC69855), *H. vulgare* (Acc.# AAO72434), and *O. sativa* (Acc.# AAP53993). Identity (*), strongly similar (:), and weakly similar (.). Underlined and double underlined sequences correspond to putative phosphorylation motifs for protein kinase C and casein kinase II, respectively. Highlighted indicates the binding sites for the primers used to clone LpPT1; yellow, 5'-end primer, green, 3'-end primer.