

change in Pi level

increase in Pi

decrease in Pi

initial response

SPX proteins

Pi transporter

control Pi
homeostasis

low T low N

low P



soluble P

total P

PHR1 like TF
SIZ1-like E3 ligase

At4/IPS1-like RNA
PHO2-like E2 conjugase

PHO1-like (SPX-EXS) protein

SPX1-like protein
SPX2-like protein
SPX3-like protein
SPX4-like protein

SPX-MFS-like protein
SPX-MFS-like protein
SPX-MFS-like protein

PHT1.3-like Pi transporter
PHT1.4-like Pi transporter
PHT1.5-like Pi transporter
PHT1.7-like Pi transporter
PHF-like Pi transport facilitator

PHT2-like Pi transporter

Pi transport into
metabolically
active organelles



prevention

stimulation