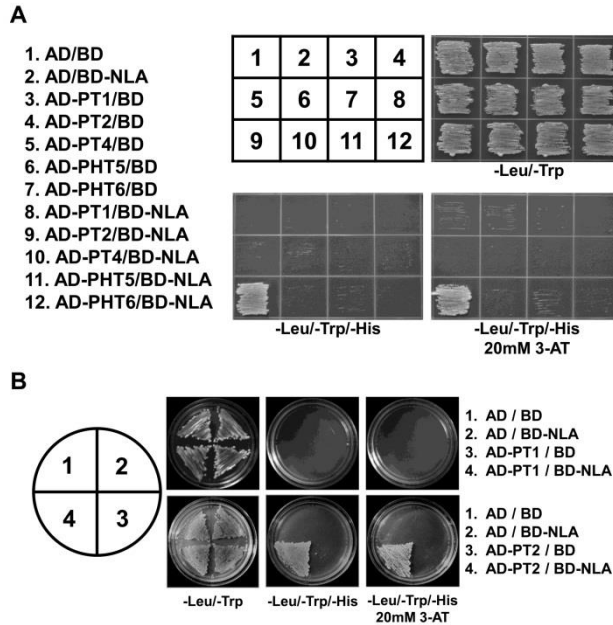


### Supplemental Figure 1. NLA interacts with UBC24 in yeast.

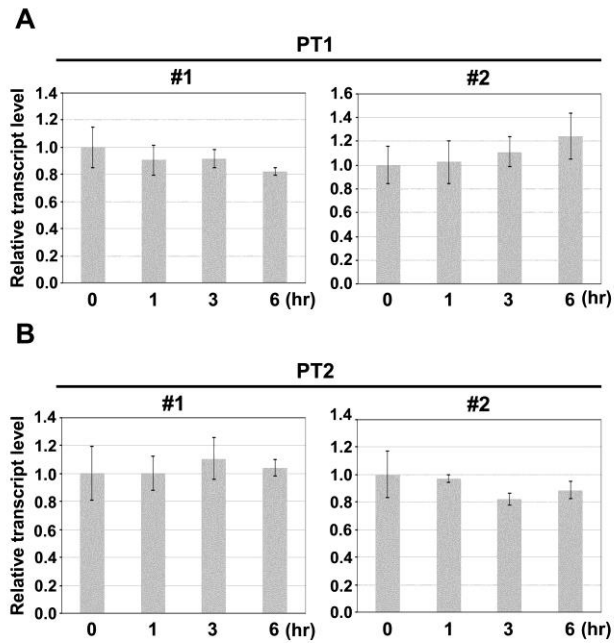
Full-length AD-UBC8/BD-NLA and AD-UBC24/BD-NLA were co-transformed into the yeast strain AH109. NLA interacts with ATPT2 but not ATPT1 in yeast. Transformants were plated onto minimal medium -Leu/-Trp, -Leu/-Trp/-His or -Leu/-Trp/-His (20 mM 3-AT). Protein interactions were indicated by colony growth. \*3-AT; 3-Amino-1,2,4-triazole.



**Supplemental Figure 2. Yeast two hybrid assays for possible interactions between NLA and five different phosphate transporters.**

**(A)** Full-length *PHT1*;1/*PT1*; *PHT1*;4/*PT2*; *PHT1*;3/*PT4*; *PHT1*;5/*PHT5* and *PHT1*;6/*PHT6* cDNAs were inserted into pGAD424(AD) and NLA was inserted into pGBT9(BD). All combinations from No.1 to No.12 were co-transformed into the yeast strain AH109.

**(B)** Full-length AD-PT1/BD-NLA, AD-PT2/BD-NLA were co-transformed into the yeast strain AH109. For both **(A)** and **(B)** transformants were plated onto minimal medium -Leu/-Trp, -Leu/-Trp/-His or -Leu/-Trp/-His (20 mM 3-AT). Protein interactions were indicated by colony growth. \*3-AT; 3-Amino-1,2,4-triazole.



**Supplemental Figure 3. qPCR analysis of PT1 and PT2 transcript level in in samples shown in Fig 6.**

*PT1* and *PT2* transcript levels were analyzed by quantitative PCR(qPCR) in two Independent lines (#1 and #2) of beta-estradiol treated samples in Fig 6. Transcript levels were normalized to those of a housekeeping gene, *ACT2*. Bars = standard error; n=3 independent biological samples.