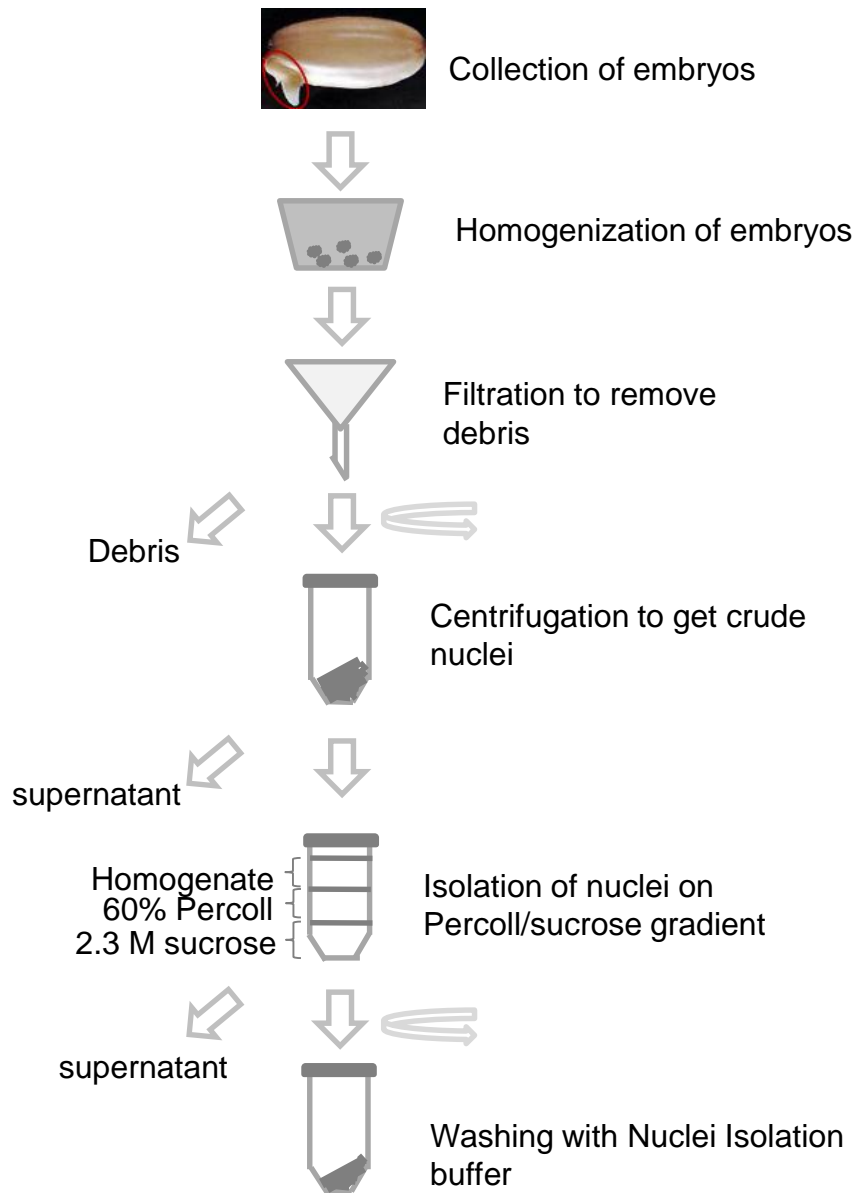
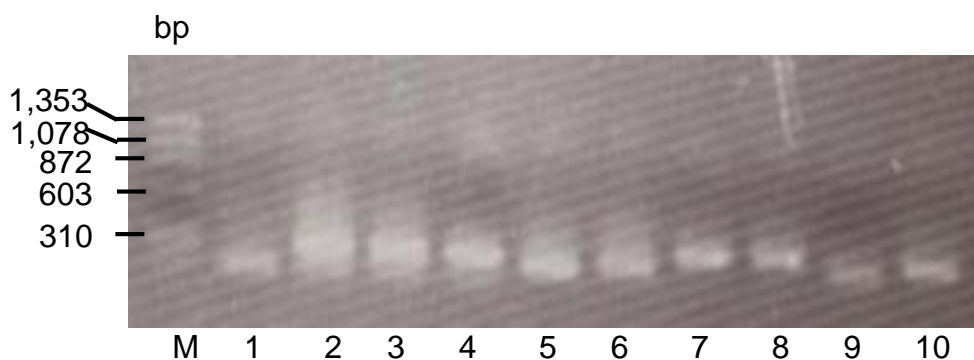


Supplemental Figure 1. Experimental design of nuclear phosphoproteomic study. Rice embryos were collected after 0, 12, or 24 h of imbibition. Total proteins, nuclear proteins, and phosphoproteins were analyzed using nanoLC-MS/MS and identified using the Mascot search engine and RAP-DB. Nuclear proteins were purified using a Plant Nuclei Isolation/Extraction Kit (Supplemental Figure 2) and phosphopeptides were enriched using PolyMAC phosphopeptide enrichment reagent. Three independent experiments were performed as biological replicates for all experiments.



Supplemental Figure 2. Procedure for nuclear isolation. The Plant Nuclei Isolation/Extraction Kit was used. Rice embryos were ground with Nuclei Isolation buffer. The homogenate was filtered through a double layer of Filter Mesh 100, collected and centrifuged. The resulting pellet was resuspended in Nuclei Isolation buffer containing protease inhibitor and phosphatase inhibitor, and layered on top of a 60% Percoll/2.3 M sucrose cushion. After centrifugation, the middle layer between the percoll and sucrose was collected. The purified nuclei were washed twice using Nuclei Isolation buffer.



1. 18s rRNA
2. AT hook DNA binding protein
3. Zinc finger CCCH type protein
4. Nucleotide_binding protein
5. WRC domain containing protein
6. Multidomain cyclophilin type peptidyl_prolyl cis_trans isomerase
7. GTP_binding signal recognition particle SRP54_ G_domain containing protein
8. Sas10/Utp3 family protein
9. Ribosomal RNA_processing protein 7
10. Zinc finger BED type protein

Supplemental Figure 3. Agarose gel electrophoresis of qRT-PCR products. Rice embryos were collected from seeds after 12 or 24 h of imbibition, and mRNA extracted from embryos was analyzed by qRT-PCR. Genes encoding the following proteins were selected for qRT-PCR: AT hook DNA binding protein (Os04t0501600), zinc finger CCCH type protein (Os02t0161200), nucleotide binding protein (Os11t0303500), WRC domain containing protein (Os07t0557500), similar to multidomain cyclophilin type peptidyl prolyl cis-trans isomerase (Os01t0582400), GTP binding signal recognition particle SRP54 G-domain containing protein (Os01t0924900), Sas10/Utp3 family protein (Os01t0104800), ribosomal RNA processing protein 7 domain containing protein (Os02t0728700), and zinc finger BED type protein (Os03t0733400). Gene numbers 2, 3, 4, 5, 6, 7, 8, and 9 are for Figure 6 and gene number 10 (zinc finger BED type protein) is for Figure 8.