SUPPLEMENTAL EXPERIMENTAL PROCEDURES

Protein Expression and Purification

Coding sequences for full-length *S. cerevisiae* Spn1 and Spt6 proteins were amplified from genomic DNA and inserted into pET151-D-TOPO Amp expression vectors (Invitrogen) containing an N-terminal hexahistidine tag and TEV protease cleavage site. Site-directed mutagenesis was used to insert termination codons to generate C-terminally truncated constructs, while N-terminal truncations were cloned by amplification from the full-length plasmids and subsequent TOPO reaction. Proteins were expressed in *E. coli* BL21-codonplus-(DE3)-RIL cells (Stratagene) in ZY-5052 autoinduction media (Studier, 2005) at 37°C for 5 h and then at 19°C until saturated. For Spn1(148-307) and Spn1(148-293), expression was in LB media at 37°C with induction by 1 mM IPTG at an OD_{600} of 1.0, with subsequent incubation at 19°C for 5 hours. Harvested cell pellets were stored at -80°C.

Cell pellets were thawed, resuspended in lysis buffer (50 mM Tris pH 7.5, 500 mM NaCl, 5% glycerol, and 15 mM imidazole) in the presence of protease inhibitors and lysozyme, and sonicated. Following clarification by centrifugation (29,000xg, 45 min), soluble fractions were applied to Ni-NTA agarose resin (Qiagen) and eluted with 300 mM imidazole (100 mM NaCl). The N-terminal hexahistidine tags of the Spn1 proteins were then removed with TEV protease and any uncleaved protein removed by passage over an Ni-NTA column. Subsequently, Spt6(239-268) was applied to an anion-exchange column (5 mL HiTrap Q HP, GE Healthcare) and eluted with a NaCl gradient. Spn1 proteins were chromatographed on Heparin (5 mL HiTrap Heparin HP, GE Healthcare) and Q columns and collected in the flow through. The Spn1(148-293)-Spt6(239-268) complex was prepared by mixing equimolar amounts, removing