

Figure S4 Alignment of protein sequence and predicted secondary structure of Corolla with SYP-4. (A) Clustal alignment of Corolla with SYP-4. C. elegans SYP-4 (http://www.ncbi.nlm.nih.gov/protein/CCD72468.1) was aligned to Corolla using Clustal Omega (SIEVERS et al. 2011). Three regions of potential homology were detected: region 1, from Corolla amino acids 83 to 95 (69% similarity, 38% identity); region 2, from amino acids 260 to 306 (28% similarity, 23% identity); and region 3, from amino acids 322 to 365 (43% similarity, 34% identity). Hash marks (#) denote removed sequence for ease of viewing the conserved regions and dashes (-) indicate gaps in alignment. Of these three similar regions, only region 3 falls within a predicted coiled-coil region of Corolla (Figure S1). (B) ELM analysis (http://elm.eu.org/) of Corolla (FBgn0030852), C. elegans SYP-4 (Accession CCD72468), Drosophila TF protein C(3)G (FBgn0000246) and S. cerevisiae TF protein Zip1 (Accession AAA35239) showing only the predicted coiled-coil domains, globular domains, low-complexity regions and disordered regions. Note that using the ELM resource, only one coiled-coil region was identified for Corolla and SYP-4, whereas COILS program identified three stretches of coiledcoil regions for both Corolla (Figure S1) and SYP-4 (Smolikov et al. 2009). The three coiled-coil stretches identified by COILS for Corolla are between amino acids 17 and 380. For comparison of the coiled-coil domains and flanking globular domains found in other TF proteins, Drosophila C(3)G and S.cerevisiae Zip1 are shown. Numbers above vertical lines correspond to amino acid number for each protein. Number at right-hand side corresponds to the total number of amino acids for each protein.