



**Figure S1.** FMN, disordered regions of AtLOV2 and dimers of PAS domains. (a) The  $3\sigma$  omit map of the FMN cofactor. (b) The  $1\sigma 2F_o - F_c$  electron-density map of the active site Cys512 and FMN in the two chains. (c) Traces of the  $1\sigma 2F_o - F_c$  and  $3\sigma F_o - F_c$  electron-density maps in the vicinity of the C-terminus of  $I\beta$  (yellow  $C\alpha$  trace) and the N-terminus of  $J\alpha$  (green  $C\alpha$  trace) of chain A that were difficult to interpret. (d) The two-chain arrangements (dimers) of some PAS domain constructs with PDB entry and abbreviated/full-length protein names or UniProtKB identifier in parentheses (PAS cores (grey and white); the  $A'\alpha$  helix (light/dark blue), the  $J\alpha$  helix (light/dark green) and preceding  $A'\alpha$  secondary structure elements (red)).