

## Supporting Information

### **Path Ensembles for Pin1-catalyzed Cis-trans Isomerization of a Substrate Calculated by Weighted Ensemble Simulations**

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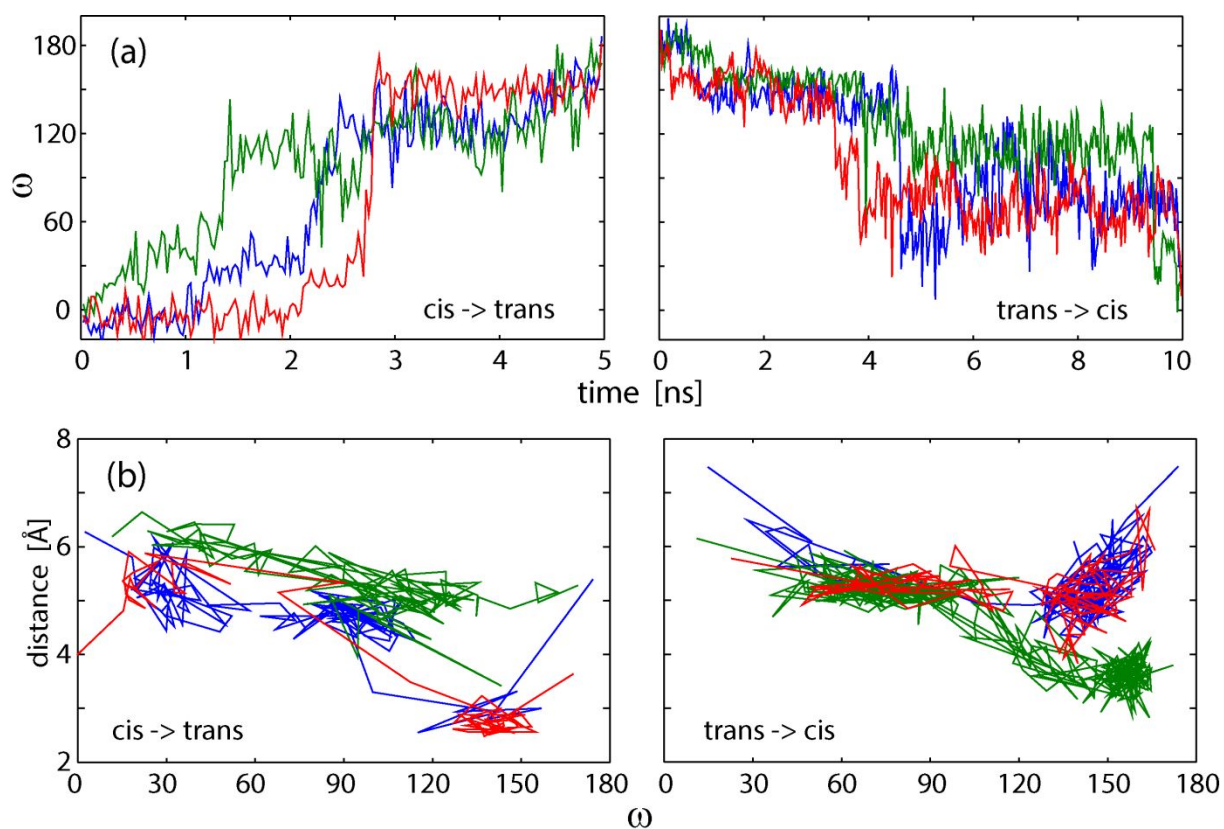
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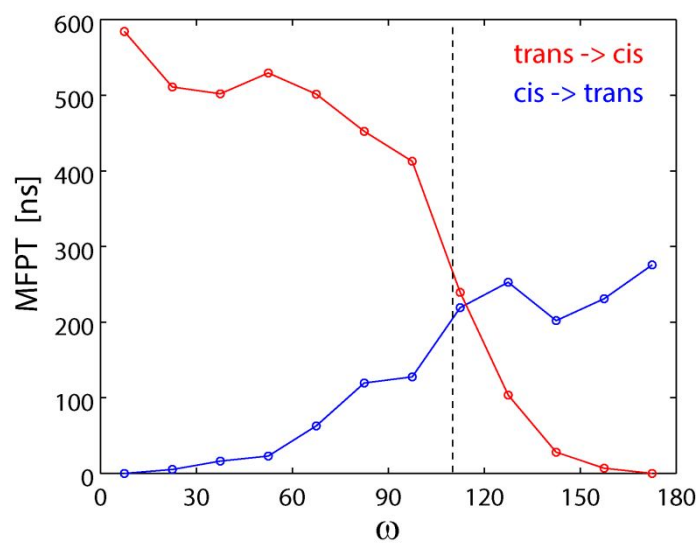
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**Figure S1.**

Three representative paths obtained from the WE simulations of both cis  $\rightarrow$  trans (left) and trans  $\rightarrow$  cis (right). (a)  $\omega$  as a function of the simulation time, and (b) two-dimensional plots along  $\omega$  and the atom distance between Ser154O $_{\gamma}$  and pSerO of the substrate (see Fig. 4a).



**Figure S2.**

Mean free passage time (MFPT) as a function of  $\omega$ , calculated from the WE simulations of both cis  $\rightarrow$  trans (blue) and trans  $\rightarrow$  cis (red).