Supplemental Data

Visualization of Rad54, a Chromatin Remodeling Protein, Translocating on Single DNA Molecules

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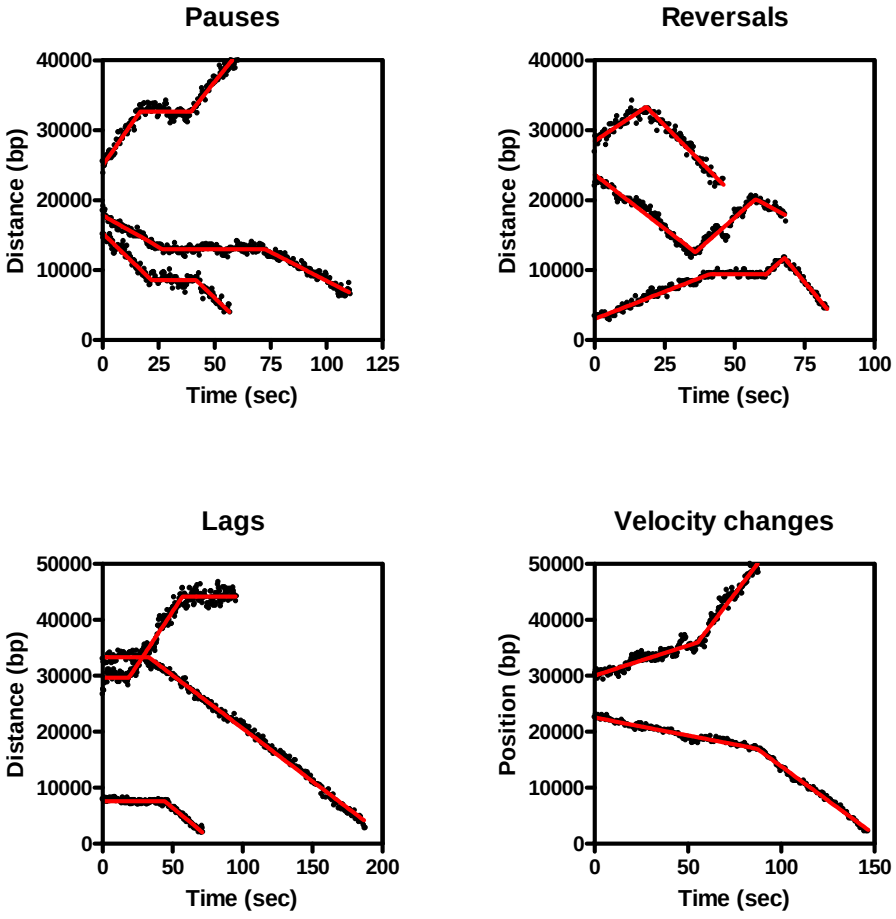

Figure S1. Examples of complex translocation behavior by Rad54: ***Pauses***, where Rad54 stops before resuming translocation; ***Reversals***, where Rad54 changes translocation direction; ***Lags***, where Rad54 is stationary prior to commencement of translocation direction; and ***Velocity changes***, where Rad54 changes translocation velocity but not direction.

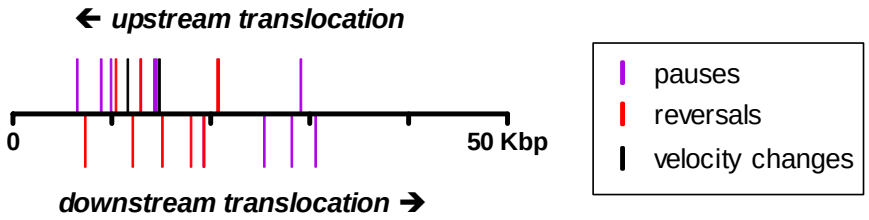

Figure S2. The locations of Rad54 pauses, reversals, and velocity changes on λ DNA are random. The direction of translocation prior to the discontinuity is indicated.

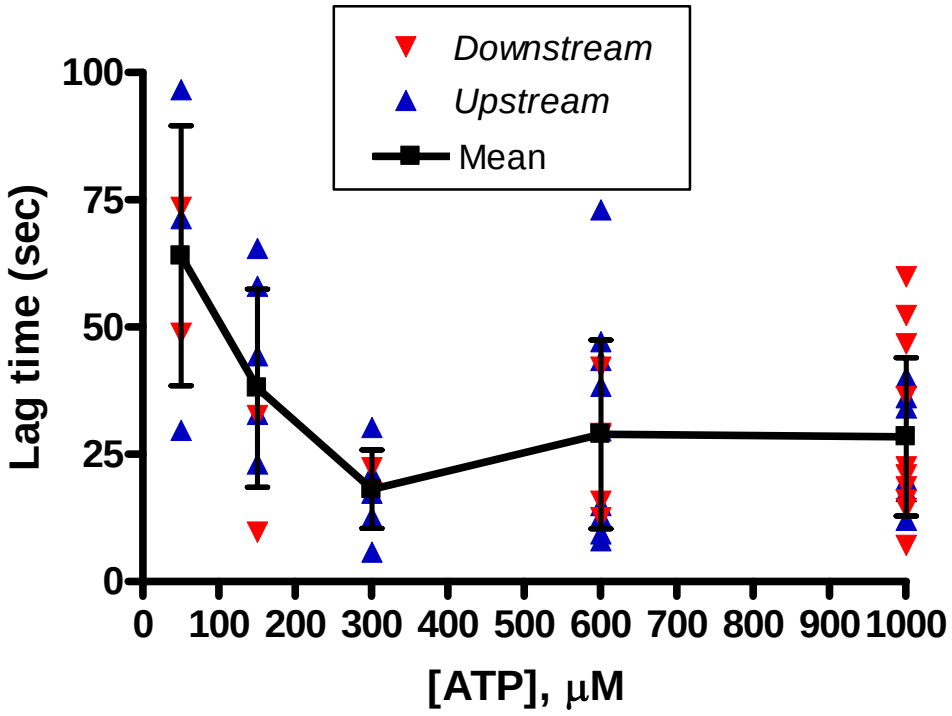

Figure S3. The stationary lag time prior to translocation is dependent on ATP concentration. Individual Rad54 molecules that traveled downstream (∇) or upstream (Δ) are plotted separately, as well as the mean value for all molecules (•), with its standard deviation.