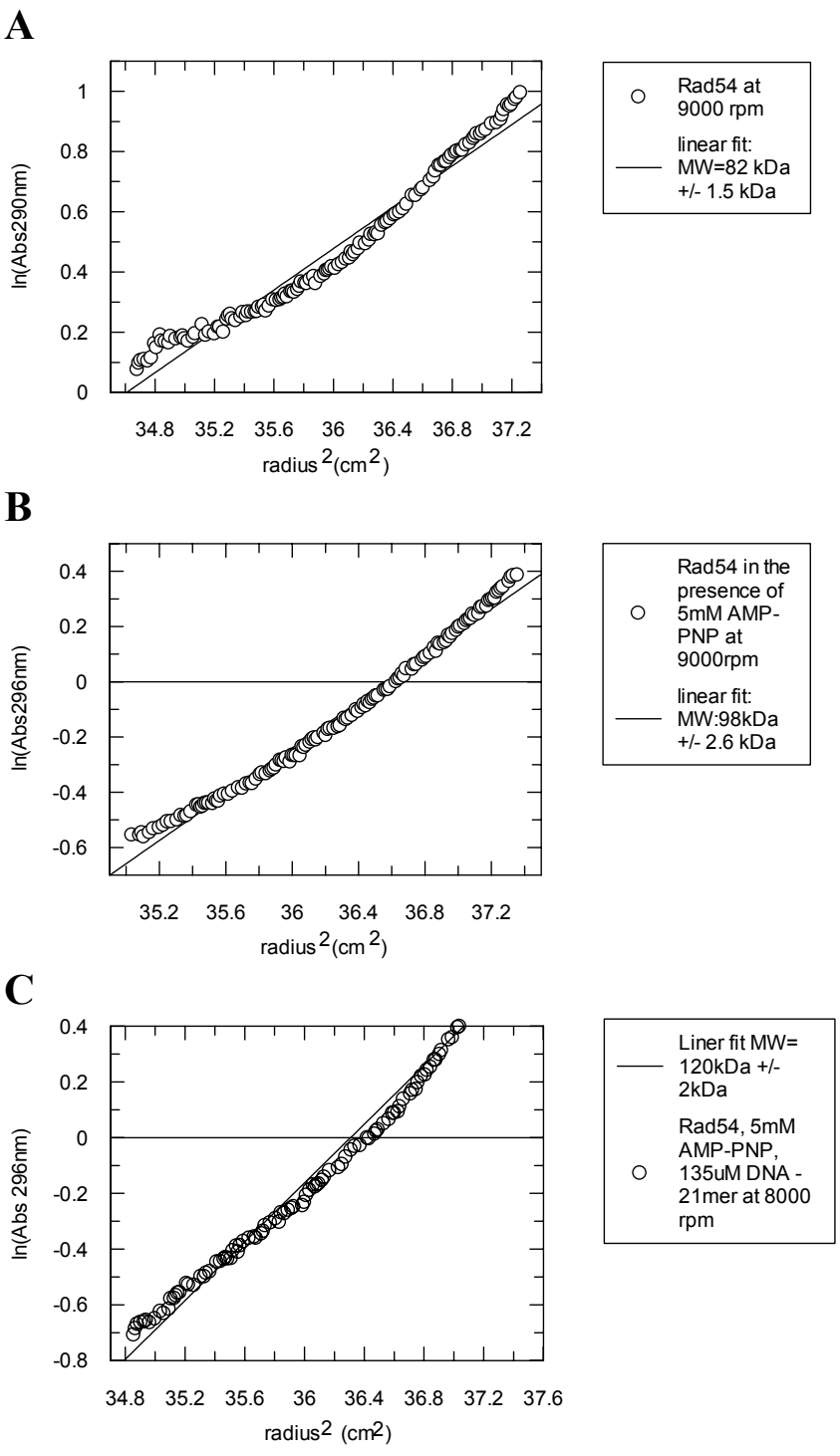
Supplementary Figure 5 Analytical ultra-centrifugation indicated that Rad54 is monomeric in solution.



Analytical ultracentrifugation was carried out with 125 μM dnRad54ΔN in 50mM Tris 8.0, 2mM DTT, 300mM salt. The calculated molecular weight for dnRad54DN is ~83 kDa. The observed value for dnRad54DN was MW_{obs} ~ 82 +/- 1.5kDa (A). Addition of 5mM AMP-PNP and 10mM $MgCl_2$ gave a MW_{obs} ~ 98 +/- 2.7kDa (B). Addition of a double stranded 21mer DNA fragment at 135μM (MW~13.6 kDa) in the presence of AMP-PNP (5mM) and Mg^{2+} resulted in a species of MW_{obs} ~ 120 +/- 2kDa (C). Similar results were also obtained in dynamic light scattering (data not shown). On the basis of these experiments it appears that dnRad54ΔN is a monomer in the presence and absence of AMP-PNP (A,B). Furthermore, the dsDNA fragment appears bound by the enzyme, but does not change the aggregation state (C).