



**S5 Figure.** Distribution of hydrodynamic radii ( $R_h$ ) of the native proteins either WCGp80 (A-F) or WCGp80(K201A) (G to I) as determined by performing DLS experiments. Experiments were performed in the absence of cofactors (apo enzyme) or in the presence of either ATP or AMP-PNP (4 mM) or DNA (100 nM) or combinations thereof. The concentrations of the proteins used were 1µM in all cases except for (A) where the protein was diluted to 40 nM. The panels shown represent the results of a single set of experiment. For quantitative interpretation, the weighted average of the  $R_h$  was determined. The results presented in Figs. 3, E and F are based on three such experiments.