



Supplementary Figure 1.

Pre-incubation with EDTA disrupts Chd1-nucleosome complexes in the presence of competitor nucleosome.

To determine how much EDTA would be sufficient for preventing formation of a stable complex in $\text{ADP}\cdot\text{BeF}_3^-$, Chd1 (40 nM) was added to 40N40 FAM-labeled nucleosomes (10 nM) in the presence of 1 mM ADP, 1.2 mM BeCl_2 , and 6 mM NaF, either without (lane 2) or with 2.5 mM MgCl_2 . The concentrations of EDTA used ranged from 62.5 mM (lane 3) to 300 mM (lanes 7 and 8). For all EDTA concentrations, Chd1 failed to remain bound to nucleosomes above background levels, consistent with the EDTA chelating all free Mg^{2+} necessary for a stable Chd1-nucleosome complex. Competitor 26N33 nucleosome (1 μM) was added to FAM-40N40 nucleosomes either before the addition of Chd1 (lane 10, negative control, black circle), or after a 2 hr incubation of Chd1 with FAM-40N40 nucleosomes as indicated. Species were resolved on 3.5% native polyacrylamide gels. Reactions for lanes 1-7 were loaded onto gels after 2 min incubation with competitor.