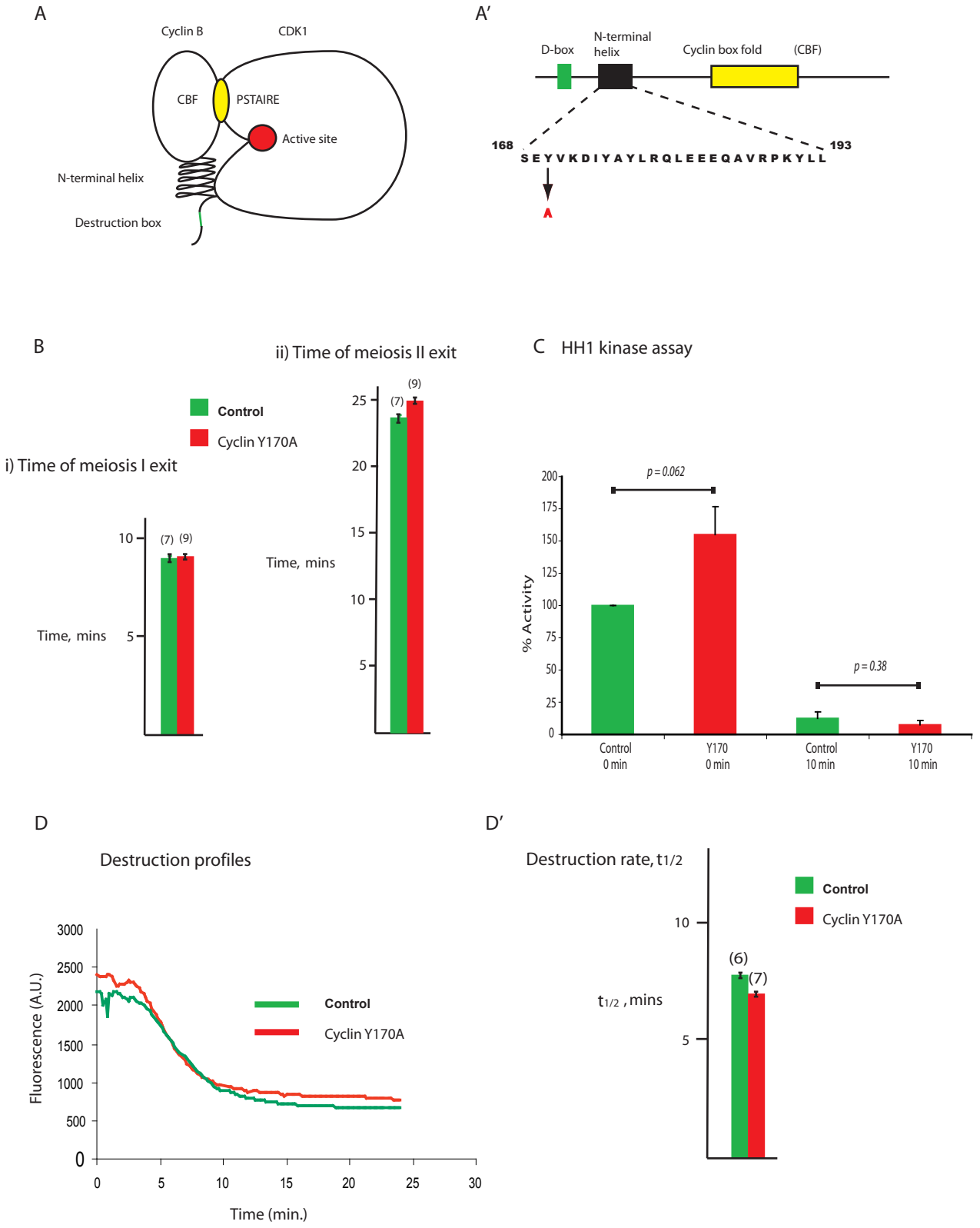
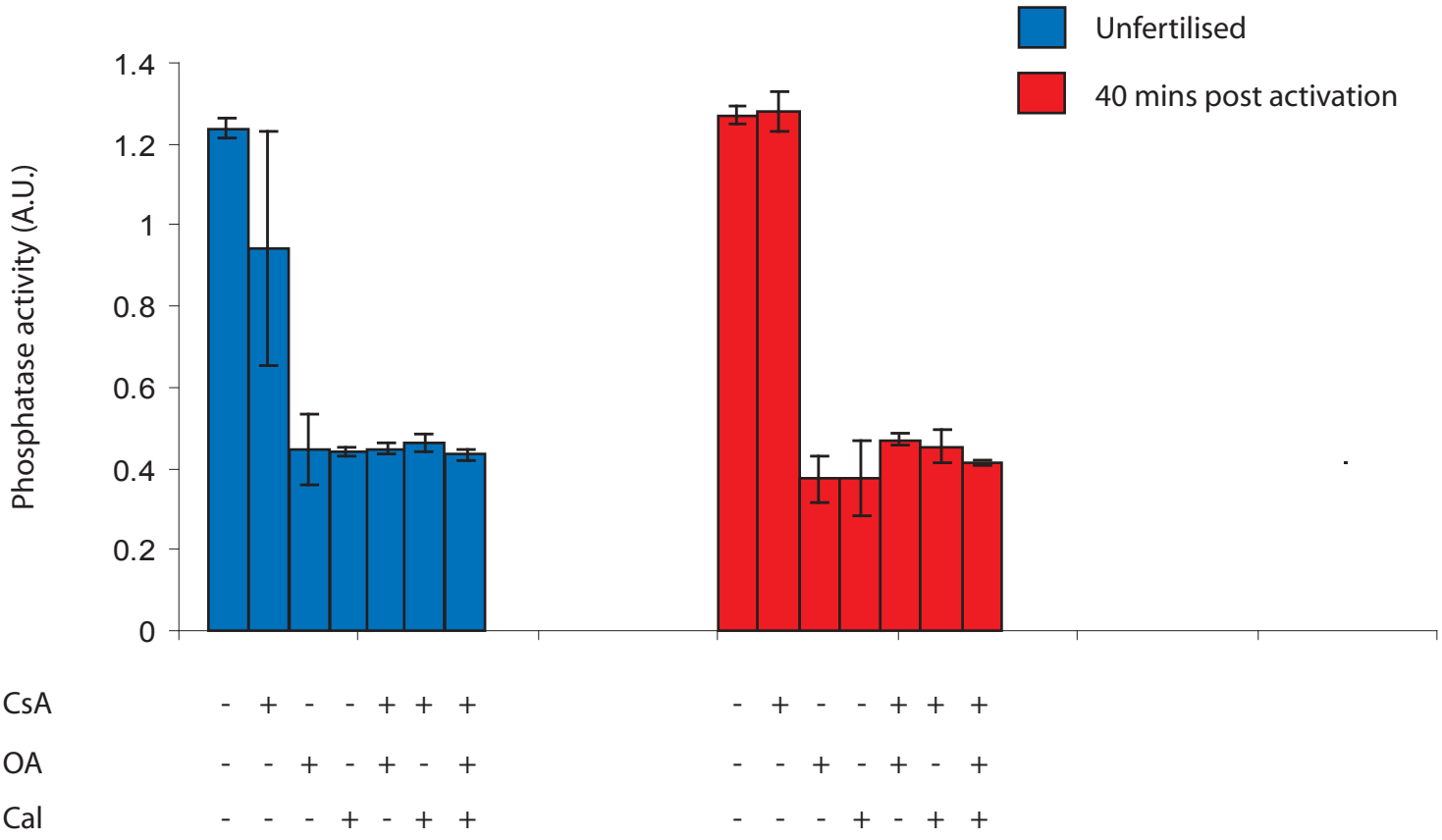
Supplementary Figure 1



Supplementary Figure 1 A Schematic of CDK1 and cyclin B interacting regions A' Map of mutation site to produce cyclin Y170A. B i and ii) Meiotic cell cycle times are unaltered by cyclin Y170A (n numbers in parentheses) C) HH1 Kinase assays showing that CDK1 activity is not elevated following egg activation in cyclin Y170A expressing eggs (n = 3) D Destruction profile and D' $t_{1/2}$ of cyclin Y170A are comparable with those of control wild type cyclin B. Thus we found that unlike wild-type cyclin B1, which significantly delays the meiotic cell cycle , there was no delay in the meiotic cell cycle when Cyclin B Y170A was expressed at similar levels and assays for HH1 kinase activity (a substrate of CDK1) showed that eggs expressing Cyclin B Y170A had similar levels of activity at 10 minutes after activation to those of the controls, showing that expression of Cyclin B Y170A does not result in elevated CDK1 activity after egg activation We do detect a small but significant increase in HH1 kinase activity in unfertilized eggs expressing Cyclin B Y170A likely indicating that at high concentration Cyclin B Y170A contributes towards HH1 kinase activity.

Supplementary Figure 2



Supplementary Figure 2 Phosphatase Assays. Eggs were tested in 2 groups, either unfertilized, or treated with ionomycin for 1.5 minutes and transferred back to sea water for the remaining 38.5 minutes. Each group was then assayed for phosphatase activity in the presence of the combination of inhibitors shown below the x axis. Activity is high in unfertilized eggs and at 40 minutes post-activation and this is unaffected by addition of CsA. OA and Calyculin (Cal) both inhibit activity, but this is not additive when used together. For details of the assay kit used, see Materials and Methods