Supporting Information

Dharan et al. 10.1073/pnas.1712033114

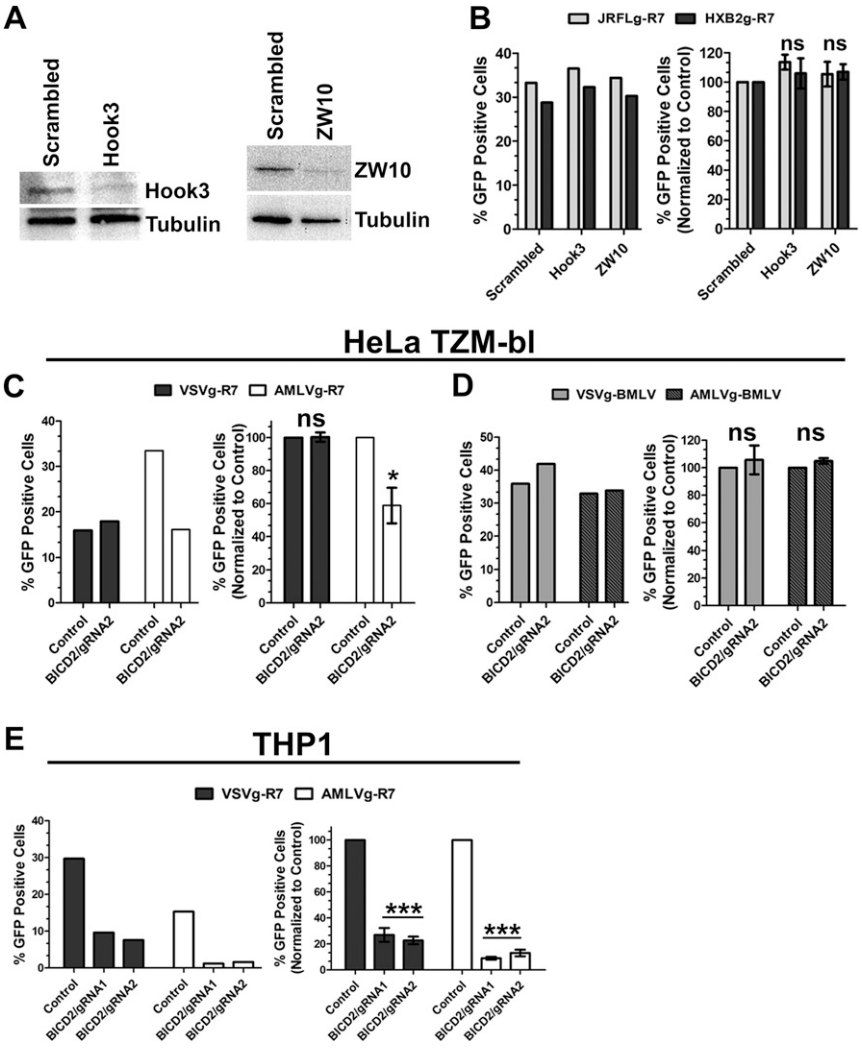

Fig. S1. BICD2 required for productive HIV-1 infection. (*A* and *B*) HeLa TZM-bl cells depleted of two dynein adaptor proteins, Hook3 and ZW10, by siRNA transfection (*A*) and subsequent infection with HIV-1 pseudotyped with JRFL and HXB2 envelope proteins (*B*). (*C* and *D*) Infectivity measurements performed and plotted as above in HeLa TZM-bl cells following infection with R7ΔEnvGFP pseudotyped with envelope proteins from VSV or A-MLV (*C*) or B-MLV pseudotyped with VSV or A-MLV envelope proteins (*D*). (*E*) Infectivity measurements in THP1 cells following infection with R7ΔEnvGFP pseudotyped with envelope proteins from VSV or A-MLV. Data from single independent experiments (left graph in every panel) and normalized and average data from three or more independent experiments (right graph in every panel) are shown (± SD). ***$P < 0.001$*$P < 0.05$; ns, not significant.

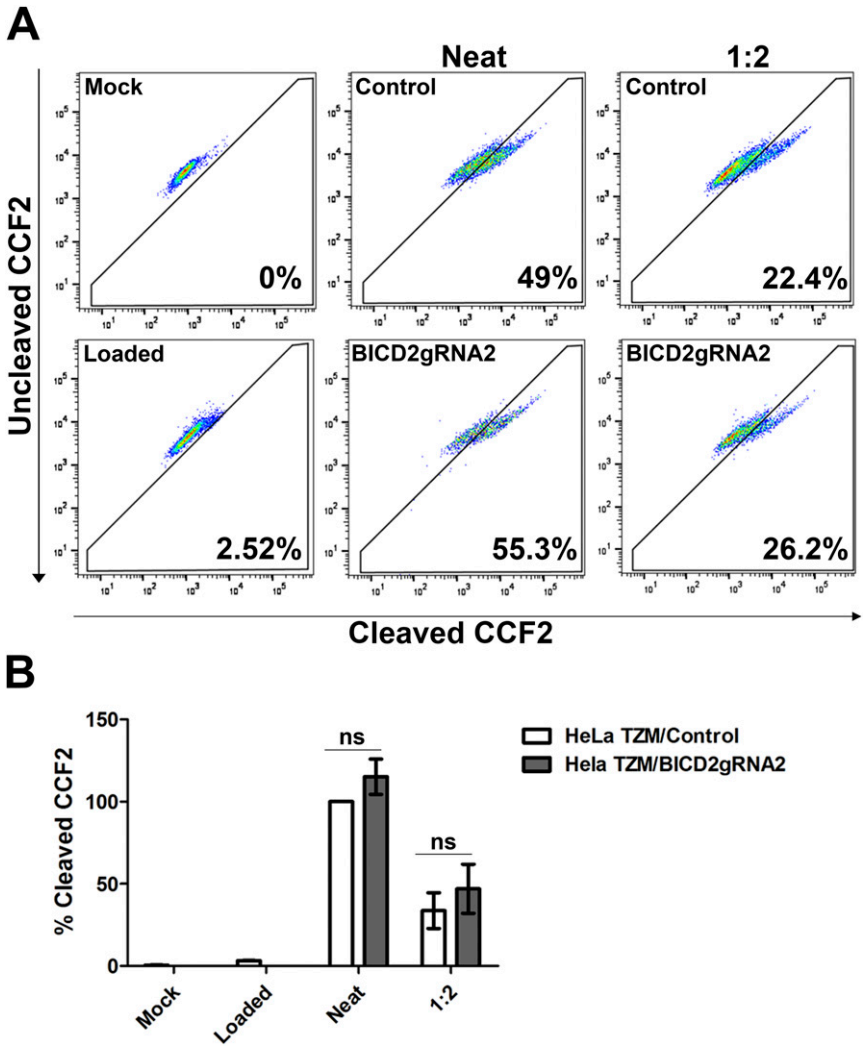

Fig. S2. Viral fusion unaffected in BICD2 knockout cells. Control and BICD2 knockout HeLa TZM-bl cells infected with JRFL pseudotyped R7ΔEnvGFP containing Blam-Vpr. Cells loaded with Blam substrate CCF2 2 h following synchronized infection. (*A*) FACS analysis showing the percent of cleaved CCF2. Data are representative of three independent experiments. (*B*) Means (± SEM) of results from three independent experiments. ns, not significant.

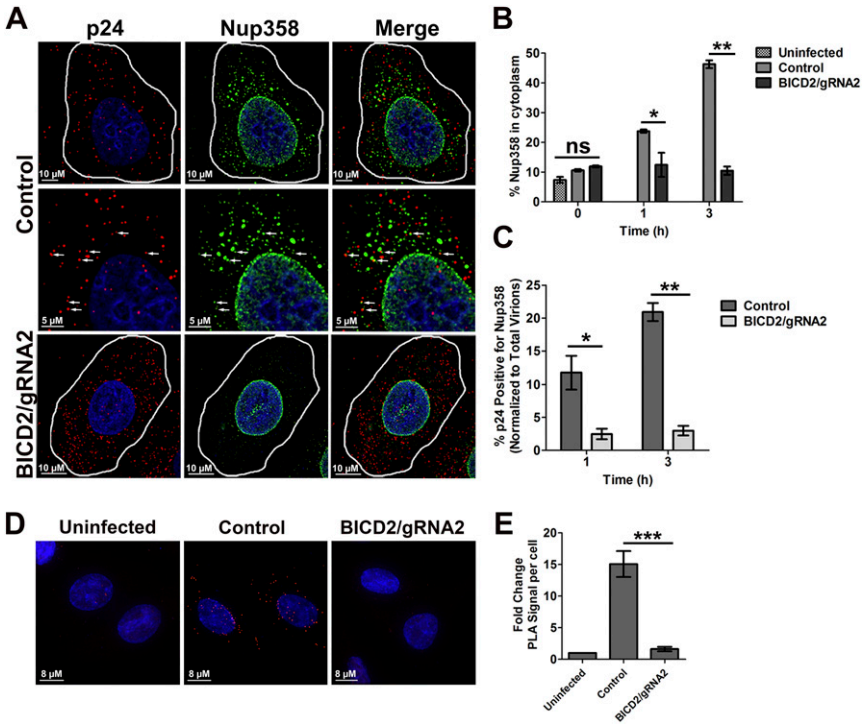

Fig. S3. BICD2 required for targeting HIV-1 virions to nuclear import sites. Control and BICD2 knockout HeLa TZM-bl cells were synchronously infected with JRFLg pseudo typed HIV-1 reporter virus (MOI of 0.3). Cells fixed 0, 1, or 3 h postinfection and immunostained with antibodies to Nup358 (green) and HIV-1 capsid protein p24 (red). (*A*) A representative image at 3 h postinfection. Nup358 and CA colocalization in control cells is shown in the middle. (*B*) The fraction of Nup358 signal in the cytoplasm at the indicated time postinfection. (*C*) Quantification of CA and Nup358 localization in the control and knockout cells. (*D*) PLA of Nup358 and CA performed on the BICD2 knockout cells 3 h following synchronous infection. (*E*) Quantification of average fold increase in PLA puncta; 20 or more cells were analyzed in each experiment. Error bar represent the SEM. Data are representative of three independent experiments. ***$P < 0.001$, **$P < 0.01$, *$P < 0.05$; ns, not significant.