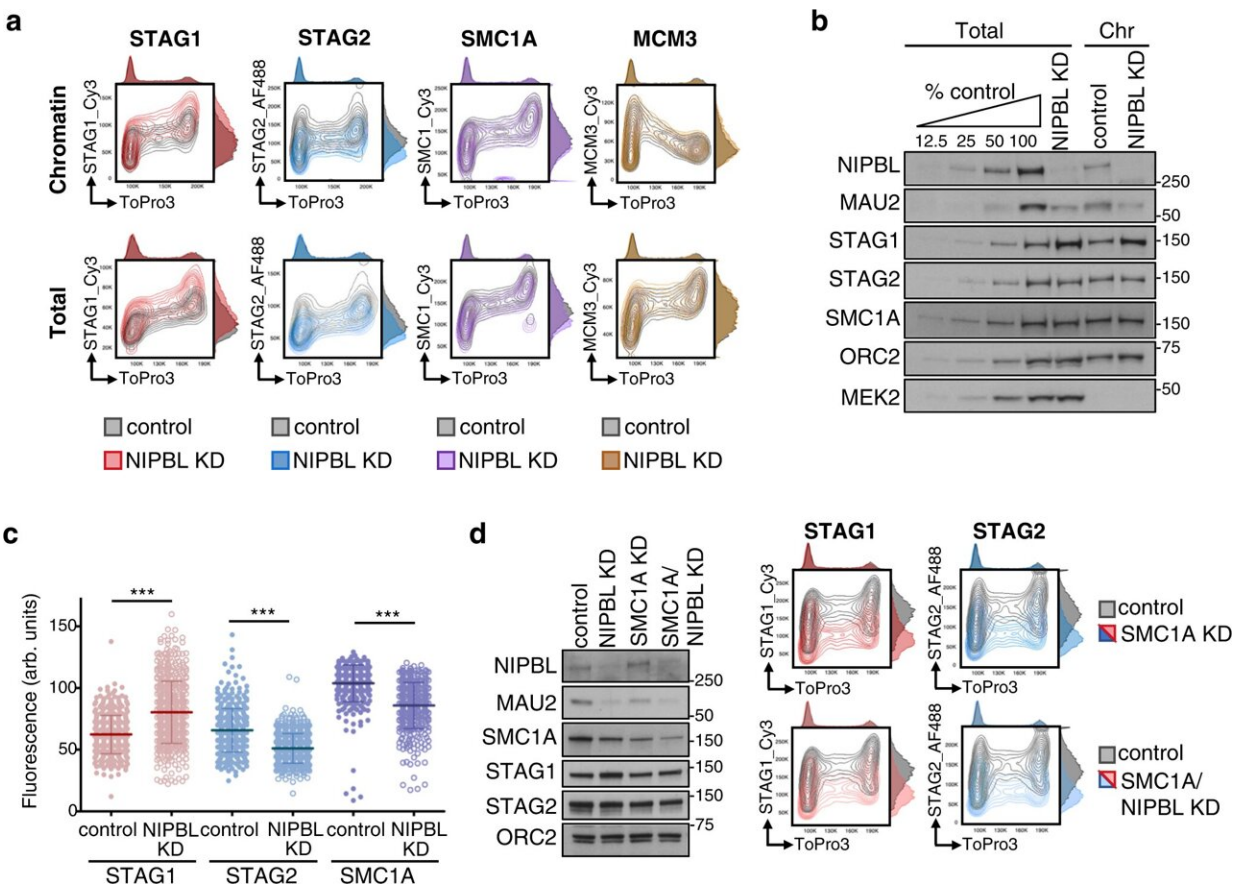


Understanding how cohesin makes DNA loops in the human genome and its role in Cornelia de Lange syndrome

March 29 2023



NIPBL KD affects cohesin-STAG1 and cohesin-STAG2 in opposite ways. a Asynchronously growing HeLa cells mock transfected (control) or transfected with siRNA against NIPBL (NIPBL KD) were analyzed by flow cytometry 72 h later. Contour plots of the indicated proteins in control (gray plots) and NIPBL KD cells (colored plots) were overlapped for comparison. For each map, the cell

cycle profile according to DNA content appears on top while the distribution of antibody intensities is plotted on the right. b Immunoblot analysis of chromatin fractions (Chr) and total cell extracts from control and NIPBL KD cells. Increasing amounts of total extract from control cells were loaded to better quantitate the extent of depletion. NIPBL partner MAU2 also decreases after NIPBL KD. This is one representative experiment of at least 3 performed. c Quantitative immunofluorescence (arb. units, arbitrary units) of control or NIPBL KD HeLa cells stained with antibodies against STAG1, STAG2 and SMC1A. At least 372 cells were analyzed per condition in a single experiment. Means and SD are plotted. A non-parametric Mann–Whitney two-sided test with confidence intervals of 99% was performed. ***p

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