# SUPPLEMENTAL MATERIAL

## Supplemental Figure Legends

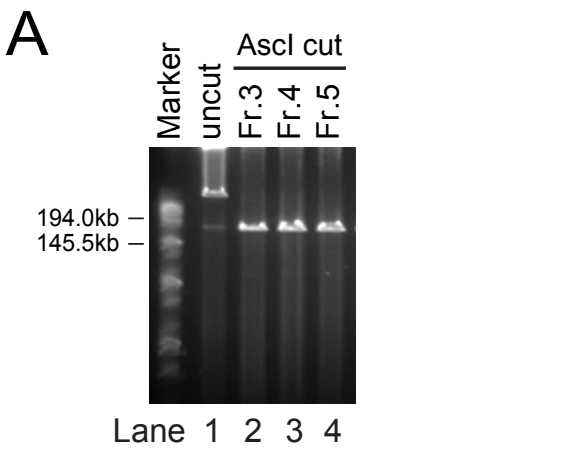
**Online Figure I.**
(A) Pulse field gel electrophoresis of linearized recombineered BAC DNA. Recombineered BAC DNA was linearlized with AscI, followed by purification with column fractionation. Fraction 4 (Lane 3) was injected into pronuclei.
(B) Probe design for Southern blotting of CyclinA2-LacZ-EGFP BAC transgenic line. Short DNA sequence of BAC vector arm adjacent to linearized AscI site was used as probe.

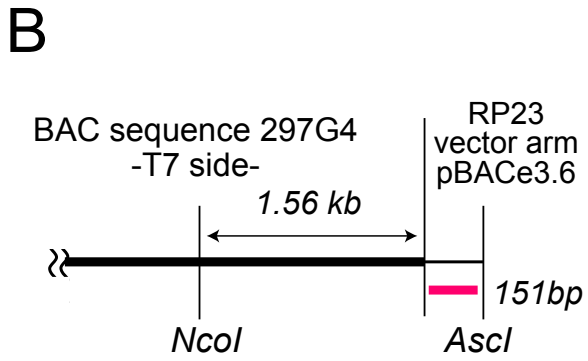
**Online Figure II.**
Fluorescence microscope images of CyclinA2-LacZ-EGFP MEFs in each S/G2 (a1-3), Metaphase (b1-3), and Telophase (c1-3). MEFs were immunostained with anti-β-gal antibody, anti-S10pH3 and staining with DAPI. Note cytosolic dispersion of CyclinA2-βgal in metaphase (b2), and its disappearance in telophase (c2). Scale bar: 20μm.

**Online Figure III.**
Quantitative analysis of CyclinA2-EGFP or /and EdU positive myocardial cells. Heart tissue sections of ED10.5 were stained for CyclinA2-EGFP, Troponin T, EdU, and DAPI. Cardiomyocytes were defined by Troponin T staining.

**Online Figure IV.**
Quantitative analysis of CyclinA2-EGFP myocardial cells at PN14, 16, 18, and 20. Heart tissue sections were stained for CyclinA2-EGFP, PDGFRα, CD31, CD45, CD146, EdU, and DAPI. The number of myocardial nuclei was defined by excluding cells labeled by PDGFRα, CD31, CD45, or CD146. Note gradual and steady decrease throughout these stages.

**Online Figure V.**
(A) Fluorescence microscopy images of PN15 heart sections from Protamine-Cre;CyclinA2-EGFP mice, stained for CyclinA2-EGFP, Troponin T, and EdU. Note CyclinA2-EGFP cells co-localized with EdU staining (white circles). Scale bar: 50μm.
(B) X-gal staining of PN15 heart sections from CyclinA2-LacZ-EGFP mice. Scattered CyclinA2-β-gal positive cells were observed in LV wall (black circles). Scale bar: 50μm.

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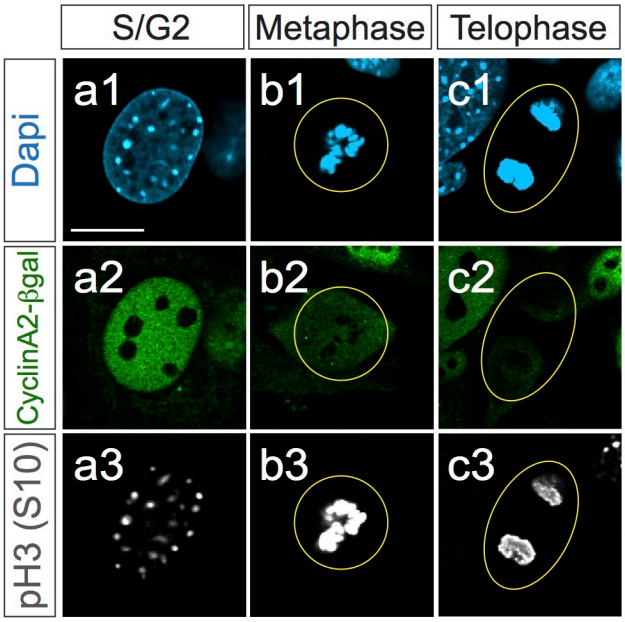


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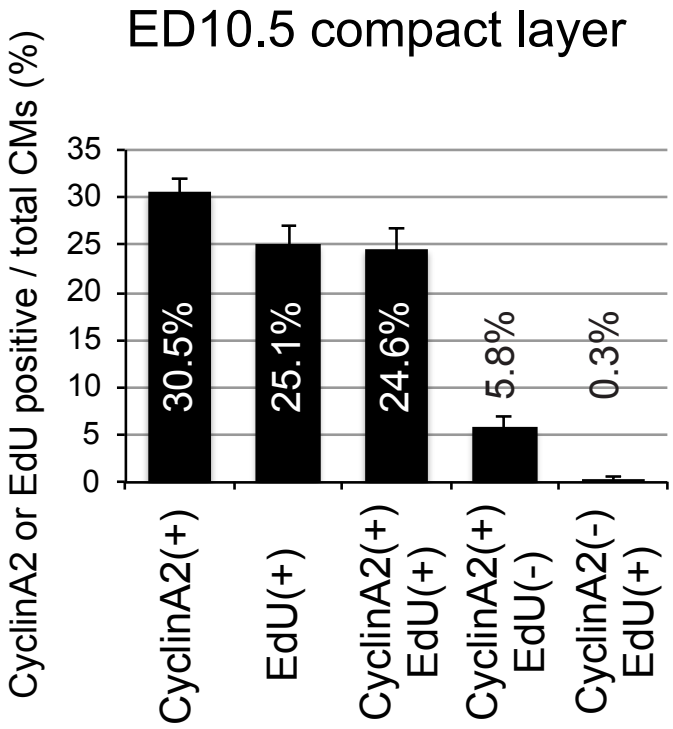


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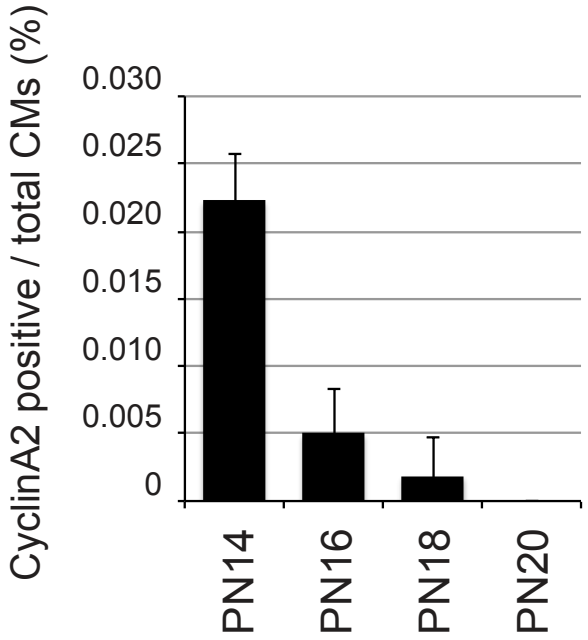


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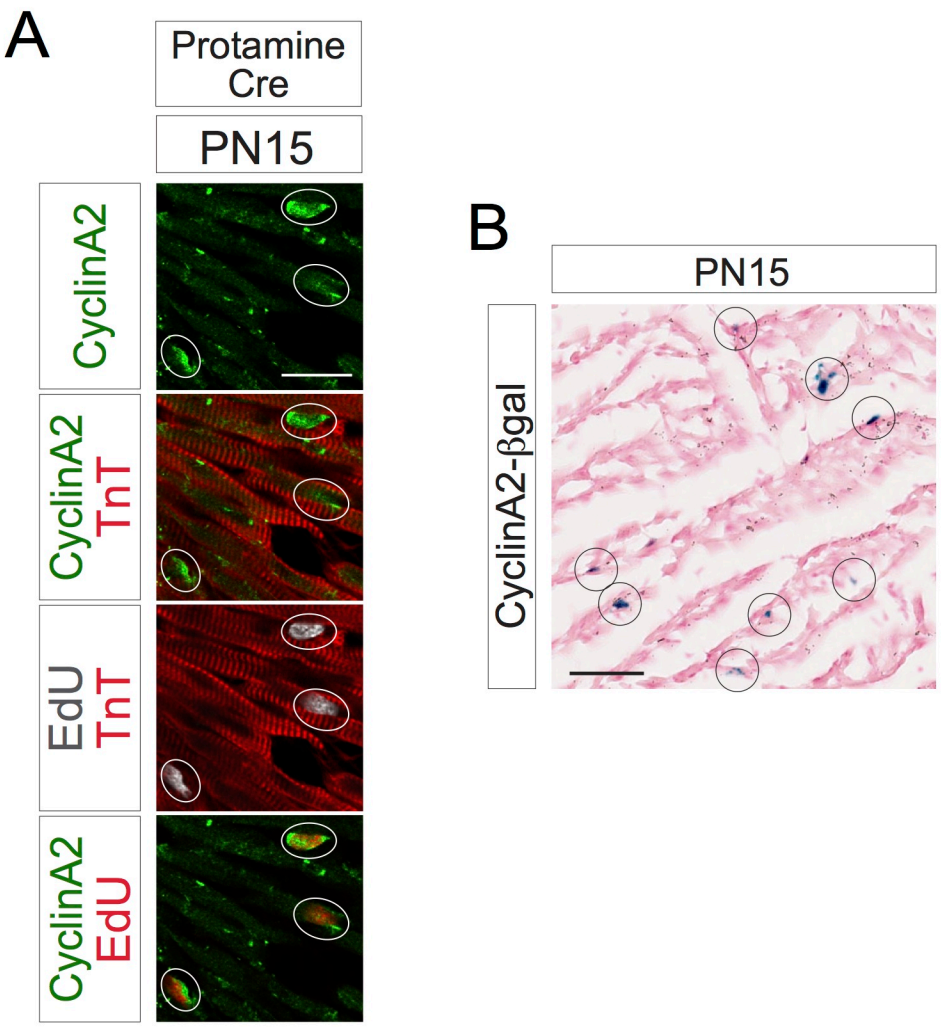


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