

Expanded View Figures

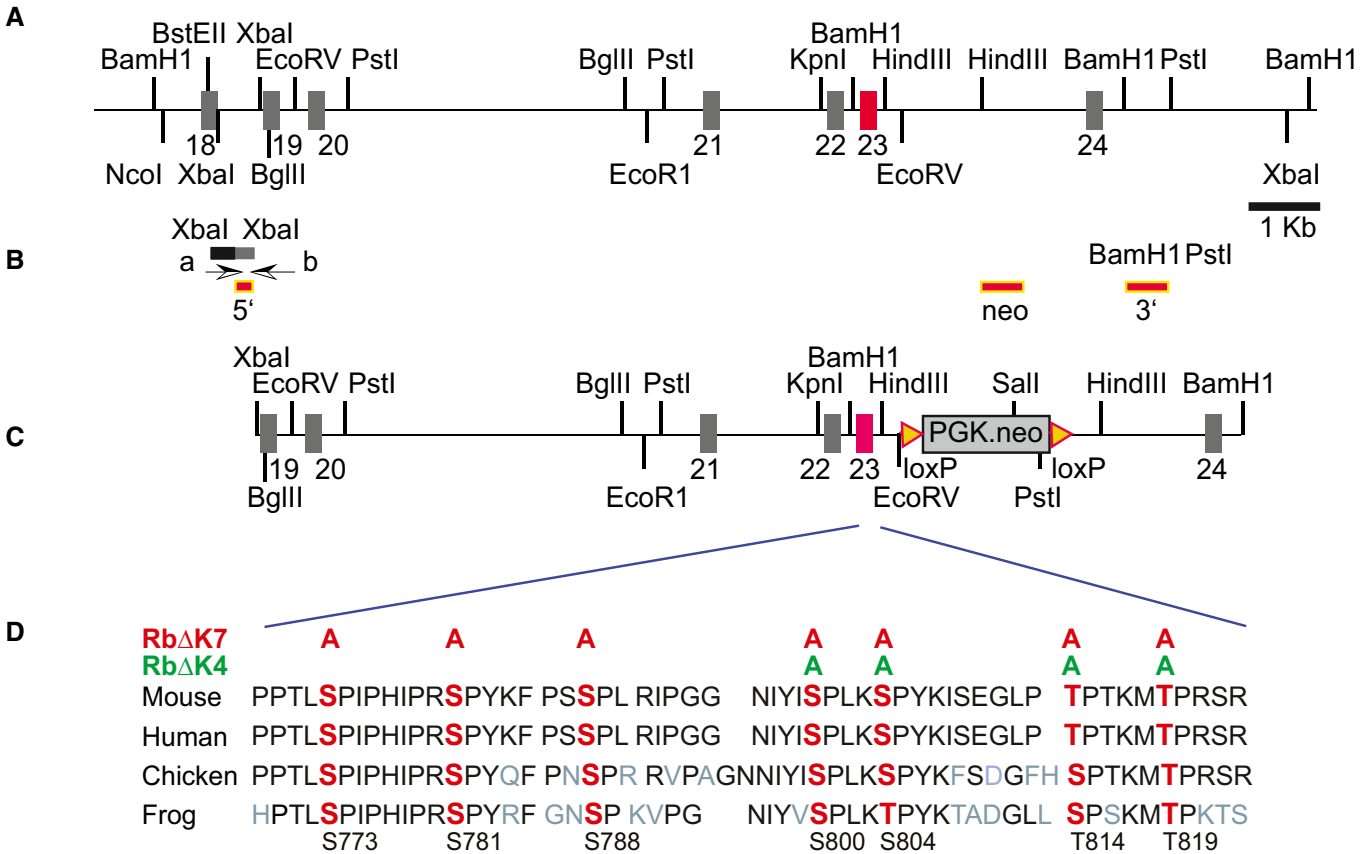


Figure EV1. Schematic structure of the Rb locus and Rb^{K4} and Rb^{K7} targeting constructs.

- A Schematic organization of the Rb locus around exon 23.
- B Probes used to screen and verify ES cell clones by Southern blots. The 5' and 3' probes are outside the targeting vector; the *neo* probe is from the PGK.*neo* cassette. The 5' XbaI fragment contains a repetitive sequence at the 5' end; a unique probe was amplified from the 3' portion of this fragment by PCR and used for Southern blot hybridization analysis (not shown).
- C Schematic structure of the targeting vectors Rb^{ΔK4,neo} and Rb^{ΔK7,neo} with Ser/Thr-to-Ala substitutions in the 4 most distal or all 7 CDK sites in exon 23, respectively. A pgk.*neo* cassette surrounding by loxP sites was introduced into the EcoRV sites in intron 23.
- D Conservation of CDK sites in Rb exon-23, and Ser/Thr-to-Ala substitutions in Rb^{ΔK4} and Rb^{ΔK7} mice. A, Alanine; S, Serine; T, Threonine. Related to Fig 1A and 2A.

Figure EV2. Reduced cell cycle re-entry of Rb^{ΔK7} β-cells in response to pregnancy, and immunostaining of pancreatic islets from 9-month-old Rb^{ΔK7} mice for the SASP markers IL-6, MMP-2 and CXCL12.

- A Reduced ability of Rb^{ΔK7} β-cells to re-enter the cell cycle in response to pregnancy as determined by immunostaining for the proliferation marker, Ki67. Shown are representative staining of islets from P14.5 pregnant Rb^{ΔK7} and control females stained for Ki67. Related to Fig 5H.
- B Representative images of pancreatic islets from 9-month-old Rb^{ΔK7} mice, immuno-stained for the SASP markers IL-6 and MMP-2 (red) plus insulin (green); or CXCL12 alone (red). DAPI was used to stain nuclei (blue). Arrows point to IL-6⁺ or MMP-2⁺, insulin⁺ or CXCL12⁺ pancreatic cells. Related to Fig 6D.

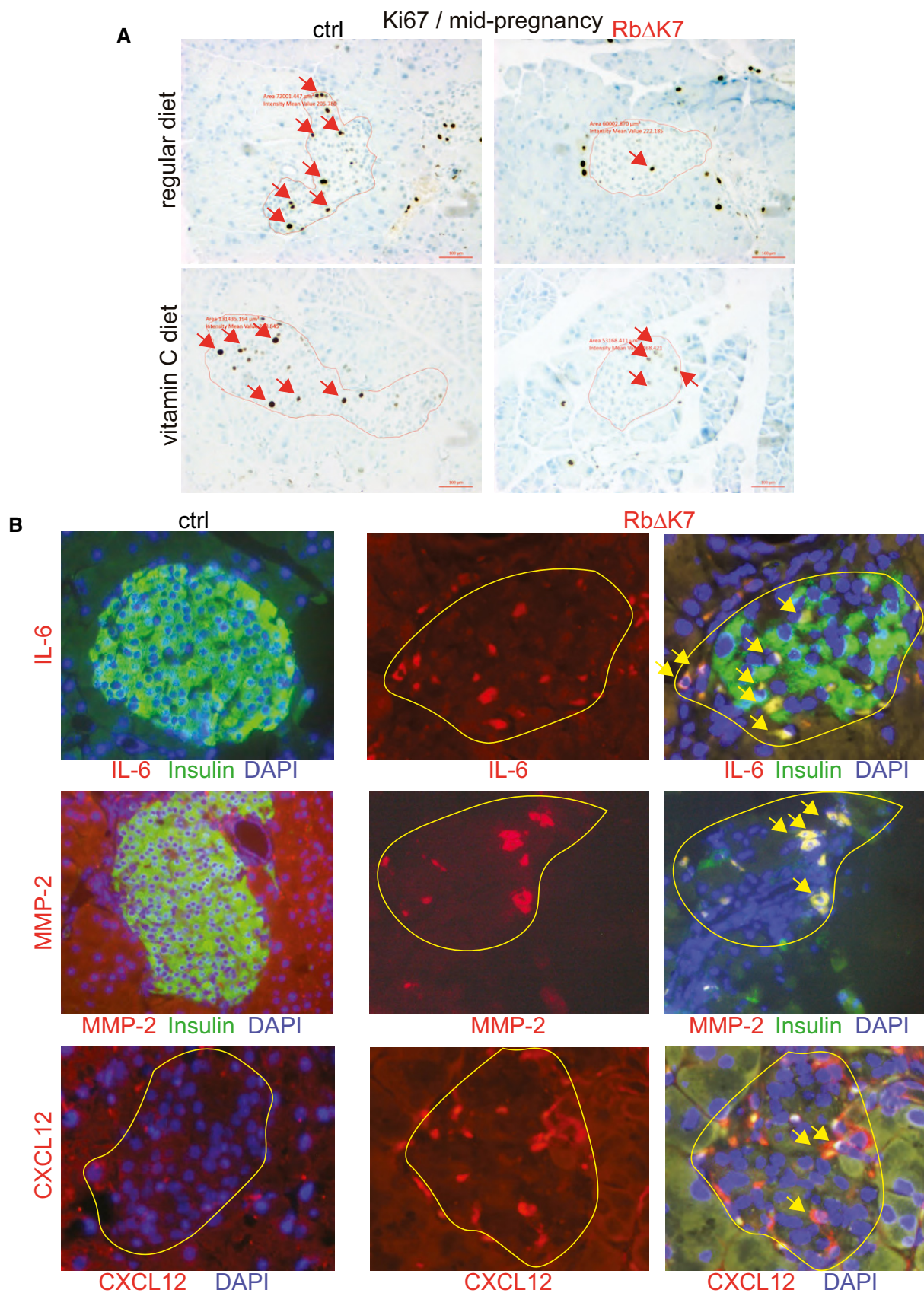


Figure EV2.