



Figure 4. Involvement of RAG1/2 in the formation of recombination centers. (A) Structure of the *IgH* locus. The murine *IgH* locus is composed of the 3' proximal region of 270 kb length consisting of 16 D_H , 4 J_H , and 8 C_H gene segments and of the distal V_H gene cluster extending over a 2.5-Mb region containing 200 V_H genes. (B) The recombination center model. In lymphoid progenitors, the proximal J_H gene region of the *IgH* locus is activated as a recombination center under the control of the μ^0 promoter and E_μ enhancer. Binding of the RAG2 PHD finger to the active H3K4me3 modification (green hexagons) in the recombination center recruits the RAG1/2 complex (brown oval), whose binding is further stabilized by the interaction of RAG1 with the J_H RSS element (arrowhead). The tethered RAG1/2 complex captures one of several D_H gene segments followed by D_H - J_H recombination. Blue triangles indicate acetylated lysine residues of histone H3.