# Supplementary Figure 4: Topology diagram and electronic density maps.

**From**

**Structural and mechanistic insight into Holliday-junction dissolution by Topoisomerase IIIα and RMI1**

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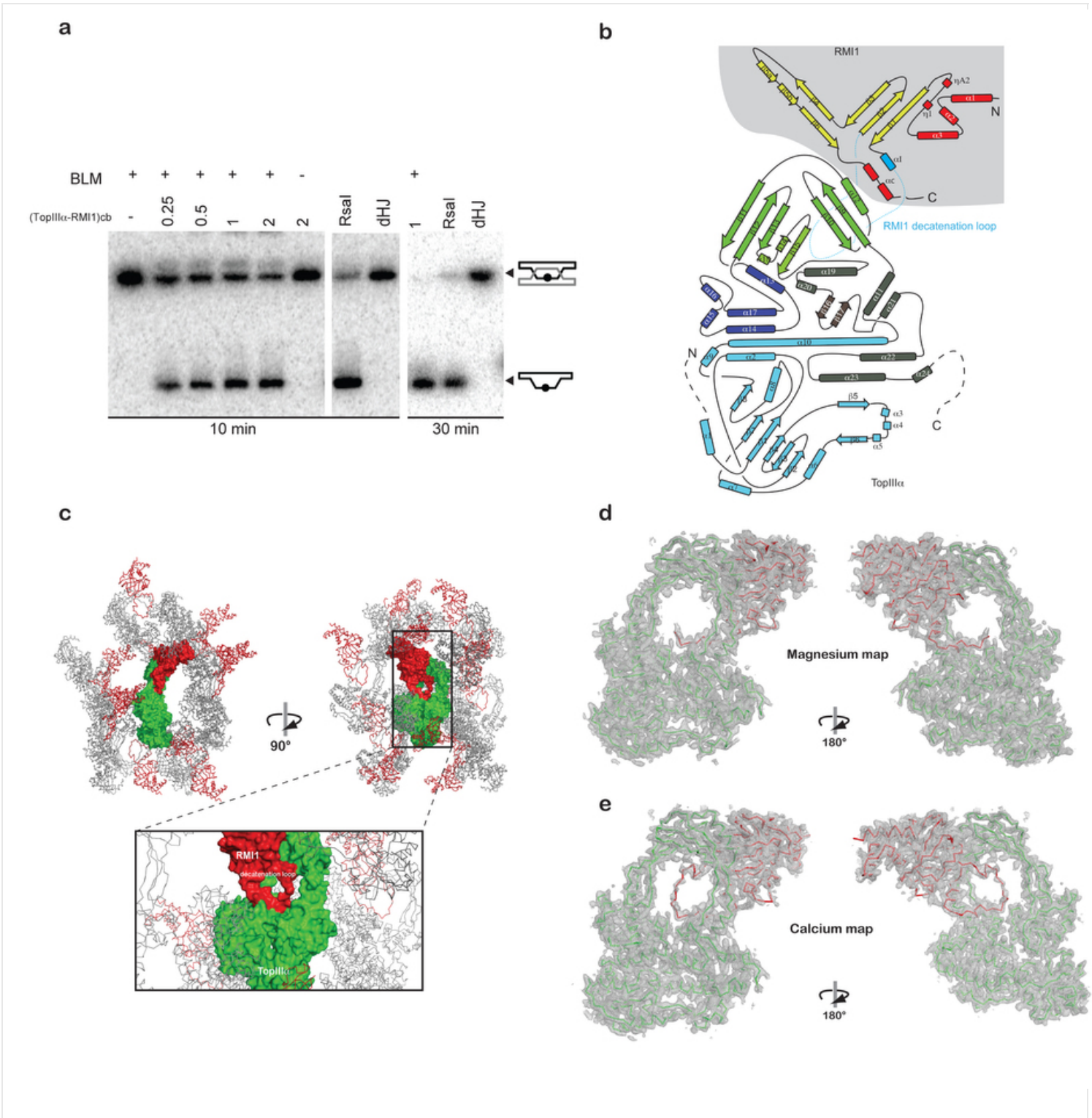

a) dHJs dissolution assay using the crystallized boundaries (TopIIIα-RMI1)cb at the indicated concentrations, BLM 10 nM for 10 min incubation and 30 nM for 30 min incubation. *Rsa*I Lane was used as a migration marker for the product of dHJ dissolution. The dissolution of dHJs is proportional to the (TopIIIα-RMI1) concentration and is complete after 30 min incubation. This demonstrates that the crystallized complex is a minimal dissolvasome and defines the minimal domains belonging to a functional enzymatic core. b) Topology scheme of the crystallized complex represented as secondary structure elements with the same colour code as in Figure 1. Dashed lines represent disordered regions in the crystal. c) Crystal packing. One heterodimer is represented as surface (Green for TopIIIα and red for RMI1) and corresponds to the biological unit. The close-up shows that the RMI1 decatenation loop is not involved in any crystal contacts. d,e) 2m*F*o-D*F*c omit maps contoured at 0.5σ and final refined models obtained in the $Mg^{2+}$ (d) and $Ca^{2+}$ (e) conditions (see Methods) represented as ribbons; TopIIIα in green with RMI1 depicted in red.

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