

Supporting Information

Effects of Full-Length Borealin on the Composition and Protein-Protein Interaction Activity of a Binary Chromosomal Passenger Complex

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Figure S1

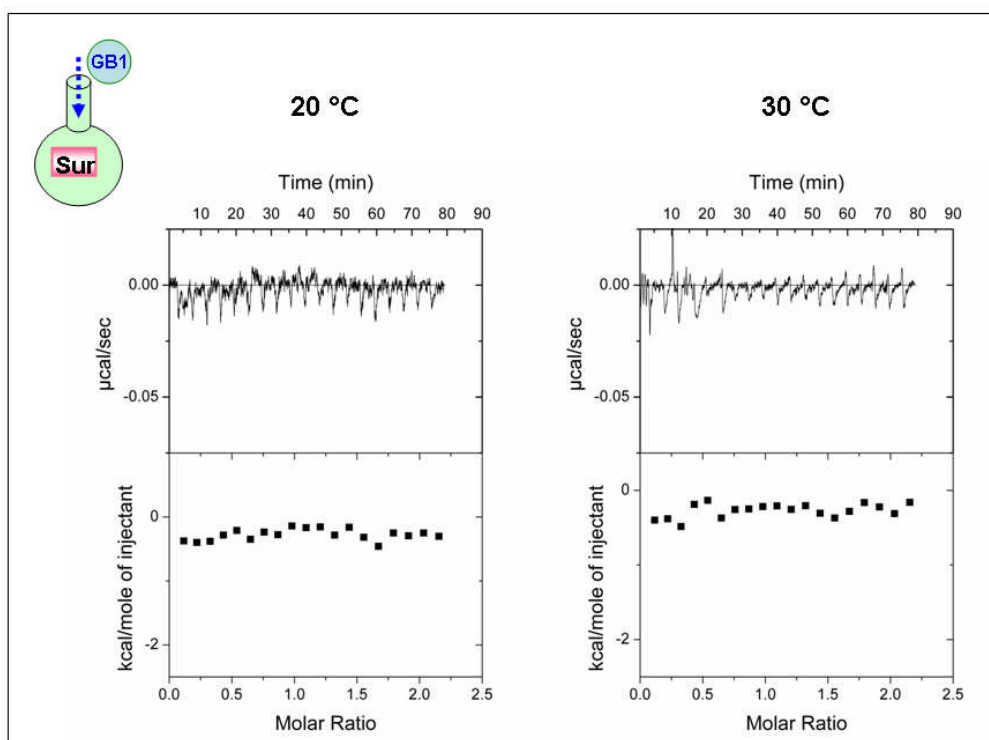


Figure S1. Isothermal titration calorimetry experiments at two different temperatures (20 and 30 °C) suggest no stable interaction can be detected between the GB1 tag (that was used in the Borealin constructs as a solubility enhancer) and Survivin. In each experiment, 1.5 ml of purified Survivin (10 µM) was titrated with aliquots of 100 µM purified GB1. The purified protein samples of Survivin and GB1 were dialysed in fresh buffer containing 50 mM Tris-HCl pH8.0, 150 mM NaCl, 1 mM DTT (in order to correct any differences in buffer conditions particularly the concentration of DTT in the separately purified protein samples) for 1 hour prior to the ITC titrations.

Figure S2

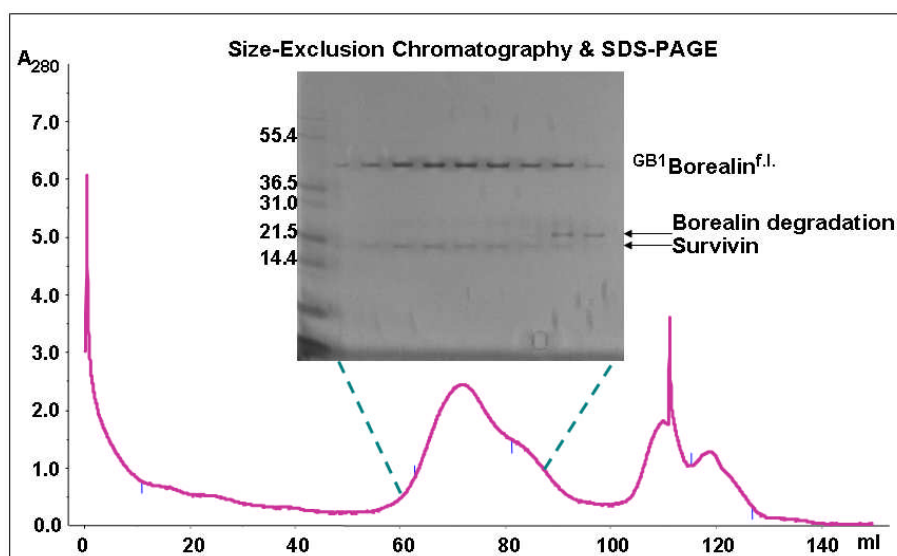


Figure S2. Size-Exclusion Chromatography (SEC) profile (flow rate 1 ml/min) of the Survivin-^{GB1}Borealin^{f.l.} complex immediately after the final step of SEC purification and SDS-PAGE analysis of the Survivin-^{GB1}Borealin^{f.l.} complex elution fractions indicate a degree of Borealin degradation within a 2 hour time scale.

Figure S3

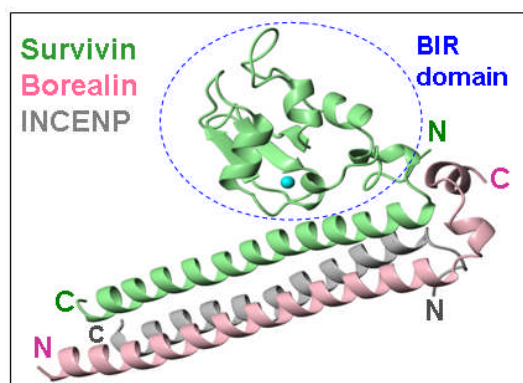


Figure S3. Crystal structure of a ternary core Survivin-Borealin¹⁰⁻¹⁰⁹-INCENP¹⁻⁵⁸ complex (PDB code 2QFA; Jeyaprakash et al., 2007, Cell, 131, 271-285). The Borealin and INCENP fragments form two long helices that pack against the Survivin C-terminal helix, thus forming a stable three-helical bundle adjacent to the globular Survivin BIR domain.