

## SUPPLEMENTAL INFORMATION

FOR

COMP and TSP-4 interact specifically with the novel GXKGR motif only found in fibrillar collagens.

### Authors and Affiliations

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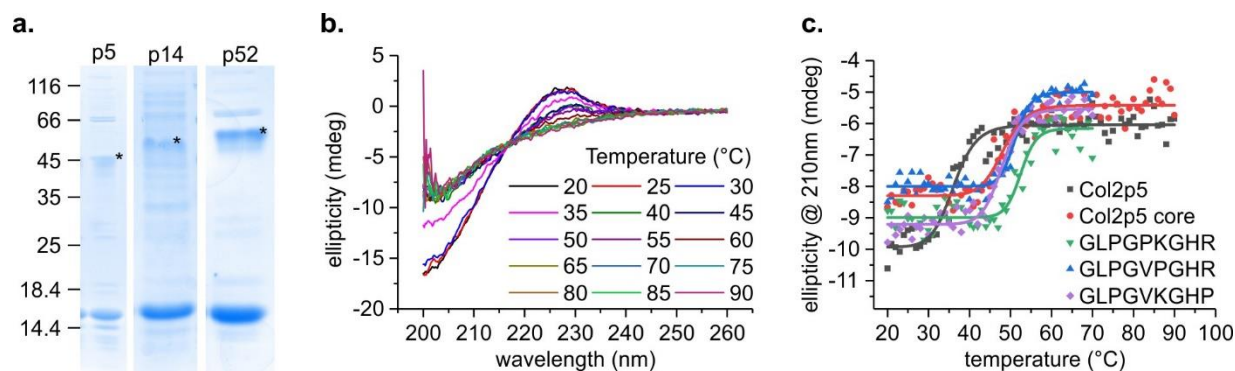
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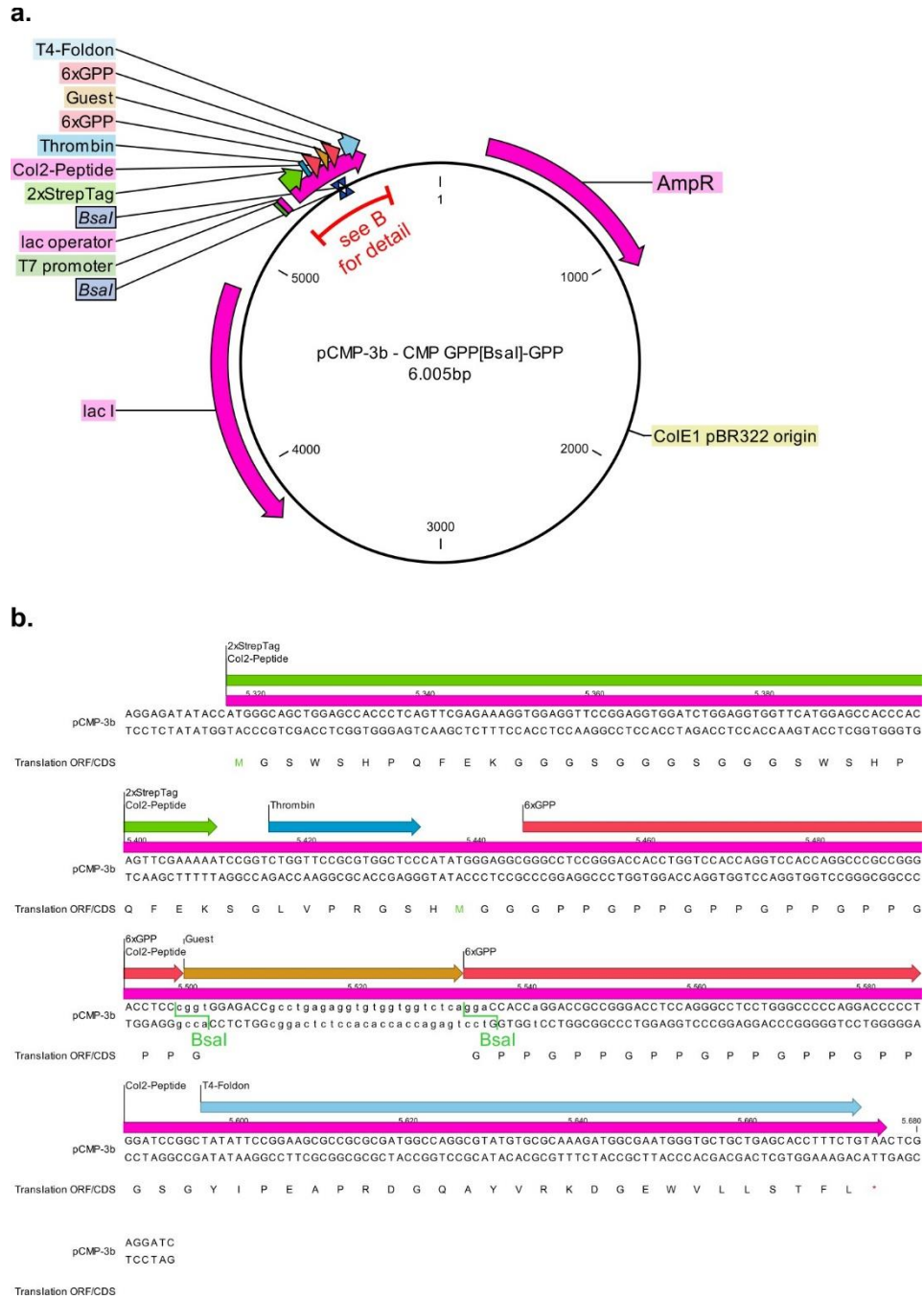
**Figure S1**



**Fig. S1. Collagen model peptides run partially as SDS stable trimers and form proper triple helices.**

(a) Purified collagen model peptides run as partially SDS-stable trimers (asterix). The calculated molecular mass of the monomers is approximately 13 kDa. (b-c) CD spectrometry of the collagen II peptide 5 and its derivatives showed a stable collagen helix. The estimated melting temperature of the peptides can be obtained by measuring the increase of ellipticity at 210nm (Boudko et al. 2002) (b) Full CD spectra for the collagen II peptide 5, showing a stable signal up to 30 °C (c) melting curves measured via CD spectroscopy at 210 nm for the col2p5 derivatives. The melting point for the full-length col2p5 is at  $36 \pm 0.5^\circ\text{C}$  (Col2p5) while all the other are at approximately  $50^\circ\text{C}$  (See table 2 for details) .

**Figure S2**



**Fig. S2. pCMP-3b – a vector for efficient cloning of collagen peptides.** (a) Overview of the pET-based vector. (b) Detailed view of the Golden-Gate insertion site of pCMP-3b (indicated in (a) by the red arc).

## References

- Boudko, Sergei, Sabine Frank, Richard A Kammerer, Jörg Stetefeld, Therese Schulthess, Ruth Landwehr, Ariel Lustig, Hans Peter Bächinger, and Jürgen Engel. 2002. "Nucleation and Propagation of the Collagen Triple Helix in Single-Chain and Trimerized Peptides: Transition from Third to First Order Kinetics." *Journal of Molecular Biology* 317 (3): 459–70.  
<https://doi.org/10.1006/jmbi.2002.5439>.