Cell Cycle-dependent Regulation of Greatwall Kinase by Protein Phosphatase 1 and Regulatory Subunit 3B

Dapeng Ren*[1], Laura A. Fisher*[1], Jing Zhao[1], Ling Wang[1], Byron C. Williams[2], Michael L. Goldberg[2], and Aimin Peng[1,3]

[1]Department of Oral Biology, College of Dentistry, University of Nebraska Medical Center, Lincoln, NE 68583, USA.
[2]Department of Molecular Biology and Genetics, Cornell University, Ithaca, NY 14853, USA

[3]To whom correspondence should be addressed: Aimin Peng, Ph.D. Department of Oral Biology, College of Dentistry, University of Nebraska Medical Center, Lincoln, NE 68583. USA. Tel: 1-402-472-5903, Fax: 1-402-472-2551. Email: Aimin.Peng@UNMC.edu

* These authors contributed equally to this work.

Running title: PP1 and PPP1R3B regulate Greatwall autophosphorylation.

Keywords: Greatwall/mitosis/phosphatase/PP1/PPP1R3B.

Supplemental Figures

Figure S1 & S2

Fig S1.

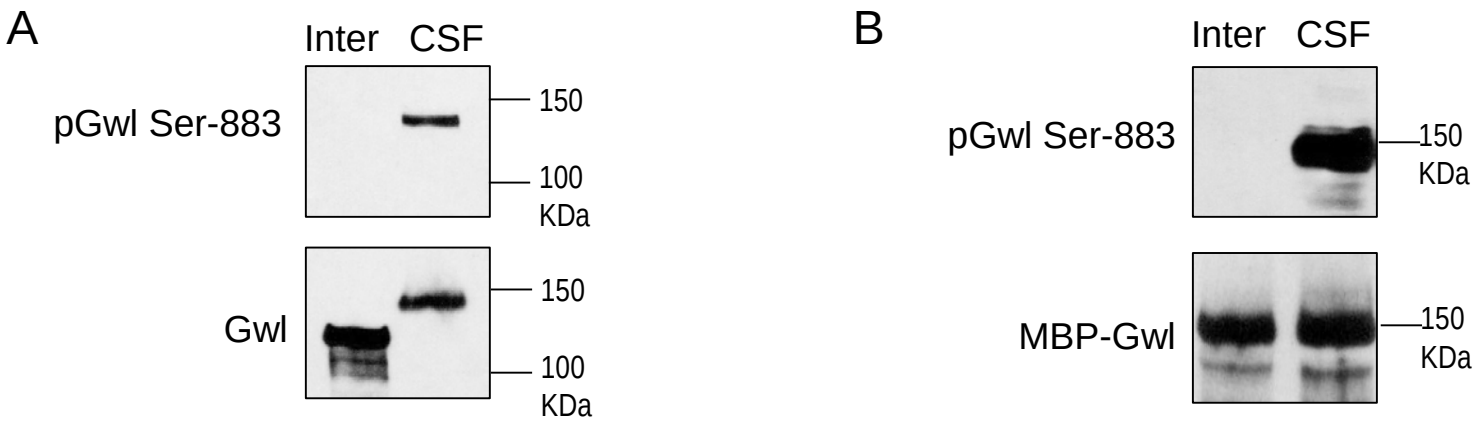

Figure S1. Characterization of Gwl Ser-883 antibody. (A) Interphase and M-phase (CSF) extracts were analyzed by immunoblotting for phospho-Gwl Ser-883 and Gwl. (B) MBP-Gwl was incubated in interphase or CSF extracts, re-isolated, and subjected to immunoblotting for phospho-Gwl Ser-883 and MBP.

Fig S2.

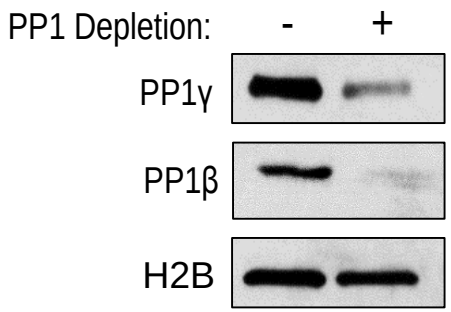

Figure S2. Depletion of PP1 with the Pnuts PP1 binding domain. The Pnuts peptide containing the RVxF PP1-binding motif was incubated in *Xenopus* interphase extract. A mock depletion was performed as control. The resulting extracts were subjected to immunoblotting for PP1β and PP1γ.