Involvement of Protein Acetylation in Glucose-induced Transcription of a Stress-Responsive Promoter

Bruno P. Lima[1], Haike Antelmann[2] , Katrin Gronau[2], Bui Khanh Chi[2], Dörte Becher[2], Shaun R. Brinsmade[3] and Alan J. Wolfe[1]*

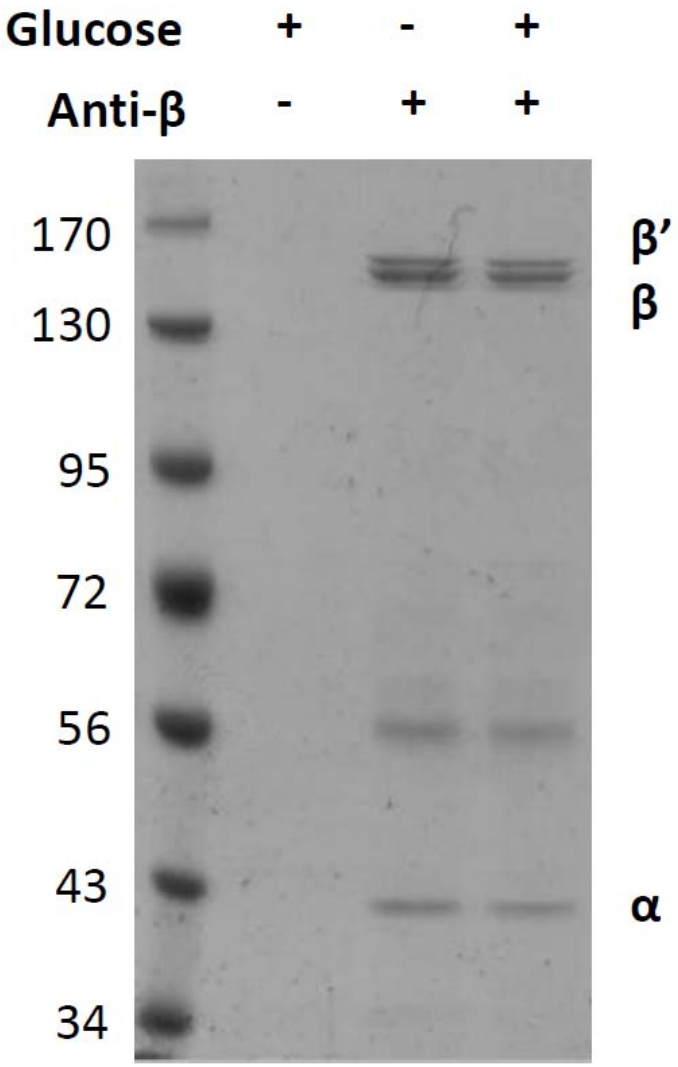
[1]Department of Microbiology and Immunology
Loyola University Chicago
Stritch School of Medicine
2160 S. First Ave. Bldg. 105
Maywood, IL 60153

[2]Institute for Microbiology,
Ernst-Moritz-Arndt-University of Greifswald,
F.-L.-Jahn-Str. 15, D-17487 Greifswald, Germany

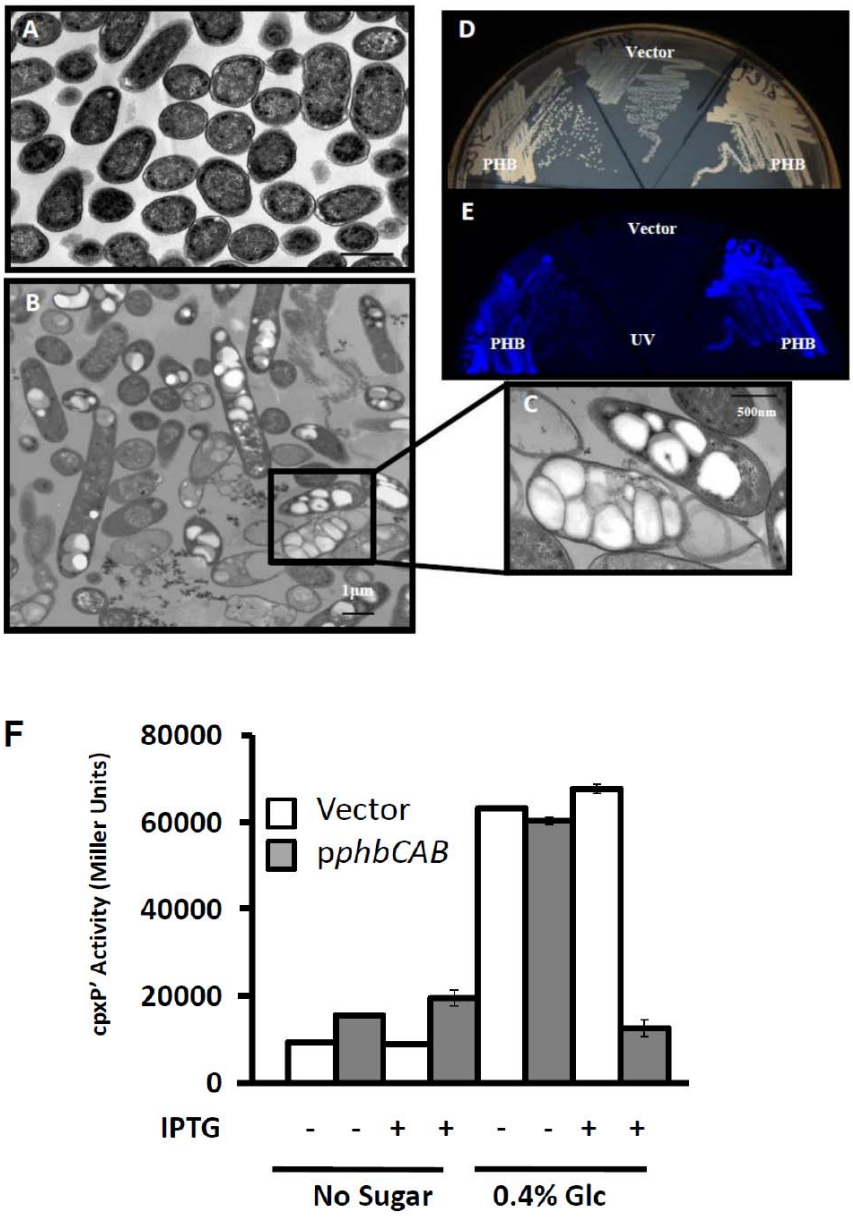
[3]Department of Bacteriology
University of Wisconsin
Madison, WI 53706

*Corresponding author
awolfe@lumc.edu
Phone: (708) 216-5814
Fax: (708) 216-9575

(Supplemental Information)



Supplemental Figure 1: A λ*cpxP* lysogen of the WT (PAD282) was grown at 37°C with shaking in buffered TB or the same medium supplemented with 0.4% glucose. Cells were pelleted by centrifugation after 7.5 hours incubation, the protein harvested, the samples subjected to immunoprecipitation with an anti-β monoclonal antibody, and separated by SDS-PAGE as described in Materials and Methods. Immunoprecipitated proteins were stained by coomassie.



Supplemental Figure 2: When expressed, *phbCAB* promotes the synthesis of PHB granules that accumulate in the cytoplasm of cells (Steinbuchel & Schlegel, 1991, Nawrath *et al.*,1994)*. These granules can be observed by EM and also by UV light when stained with Nile Red (Ostle and Holt, 1982)*. TEM of *E. coli* (PAD282) transformed with expression vector carrying *phBCAB* under the control of an IPTG inducible promoter in the absence (A), or presence of IPTG (B). Close-up of PHB particles within an *E. coli* cell (C). Nile Red plates with IPTG under natural light (D) or UV (E). λ*cpxP* lysogen of the WT (PAD282) grown at 37°C with shaking in buffered TB does not respond to the addition of 0.4% glucose when *phbCAB* overexpression is induced by IPTG (F). *See manuscript for references.