



**Additional file 6.** The growth of the yeast double mutant PAM2 in the presence of various concentrations of Pi. The yeast cells of dilution were plated onto the solid induced medium (1 liter: 5.9 g YNB (CYN0804, ForMedium), 0.77 g mixture of amino acid without Ura, 2% galactose, 2% agar (#05038, sigma), pH6.5). Pi concentration of the induced medium was 5  $\mu$ M, 50  $\mu$ M, 100  $\mu$ M, 200  $\mu$ M, 300  $\mu$ M, 400  $\mu$ M, 500  $\mu$ M and 6000  $\mu$ M, respectively, and  $K^+$  was supplemented with the equivalent KCl. Bromocresol purple was used as the pH indicator. Each spot represents a 5  $\mu$ l aliquot of cells sampled from the indicated dilution from a master culture. Yellow color indicates the cell in the spots grew well. Images were captured after three days.