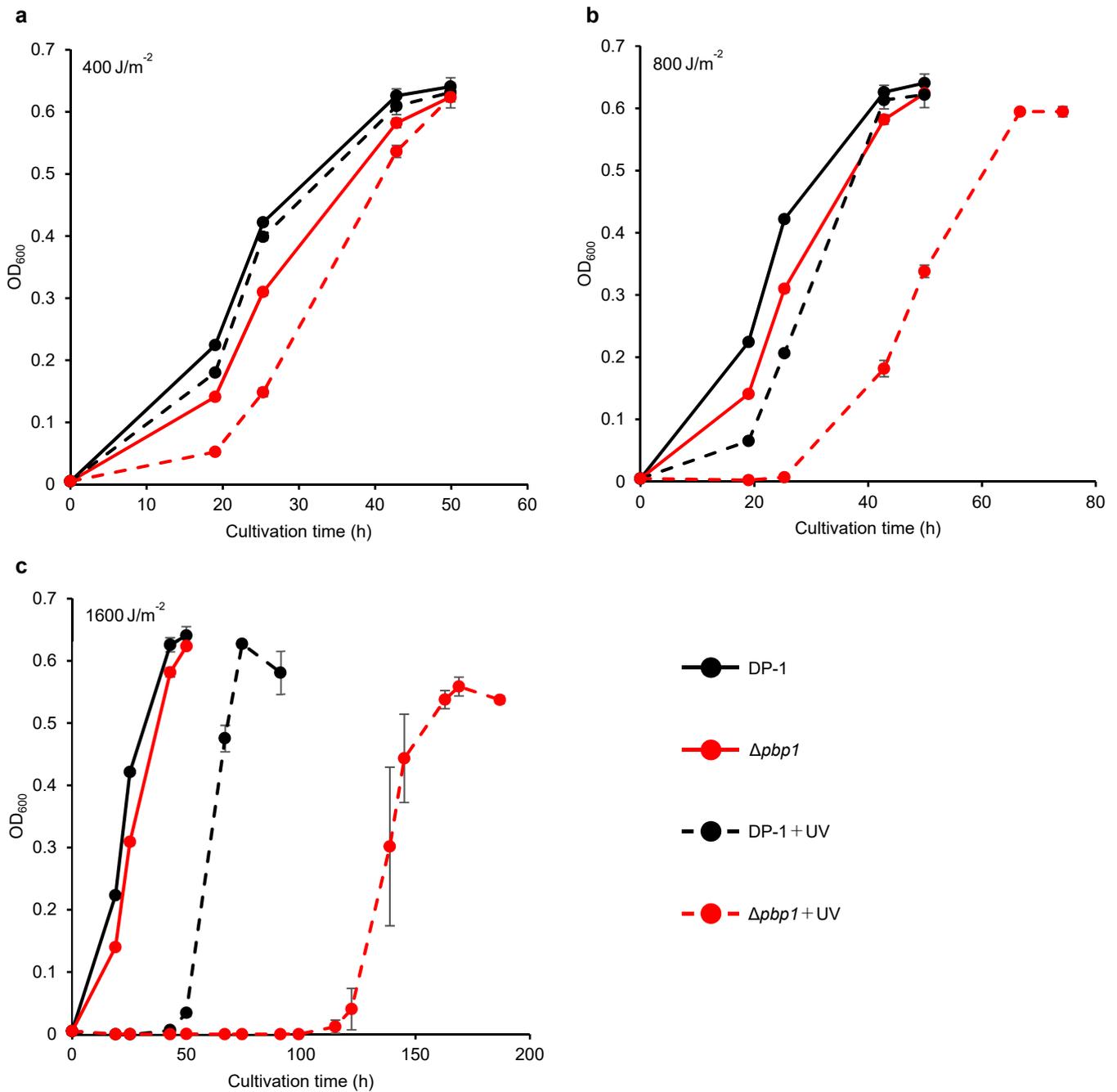
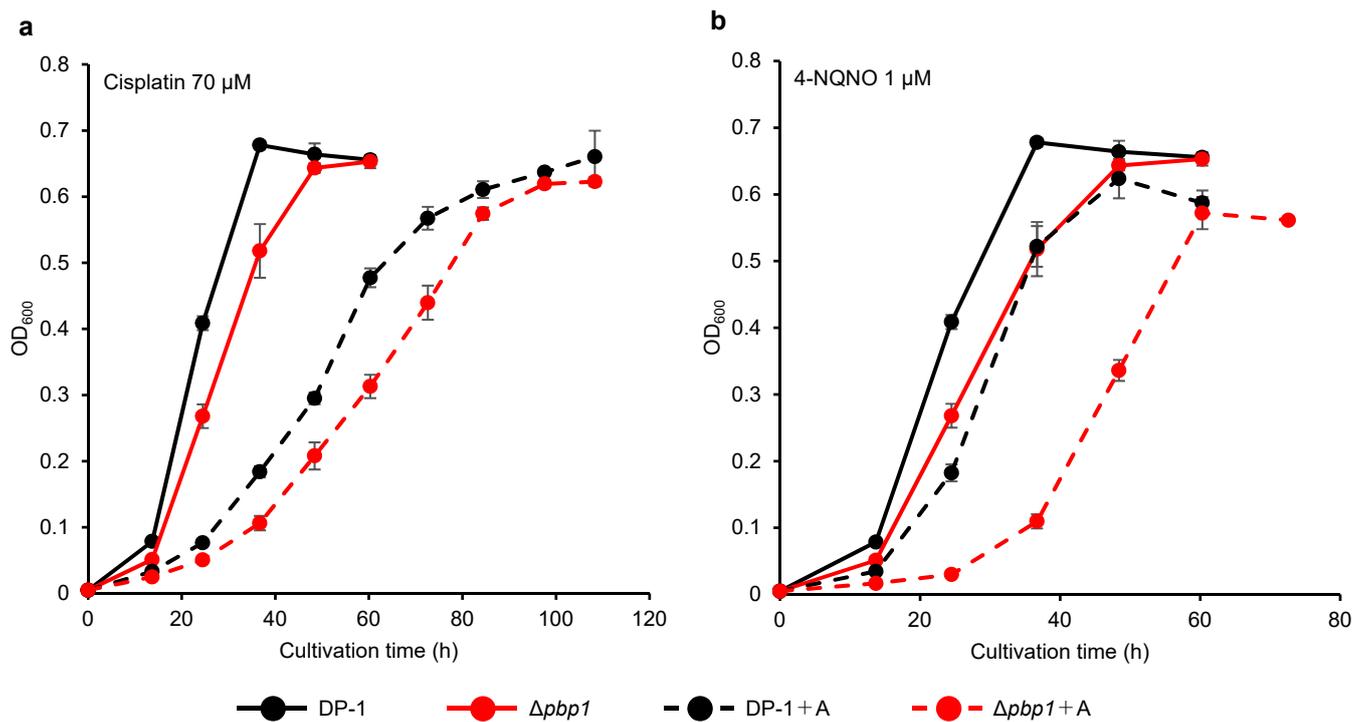


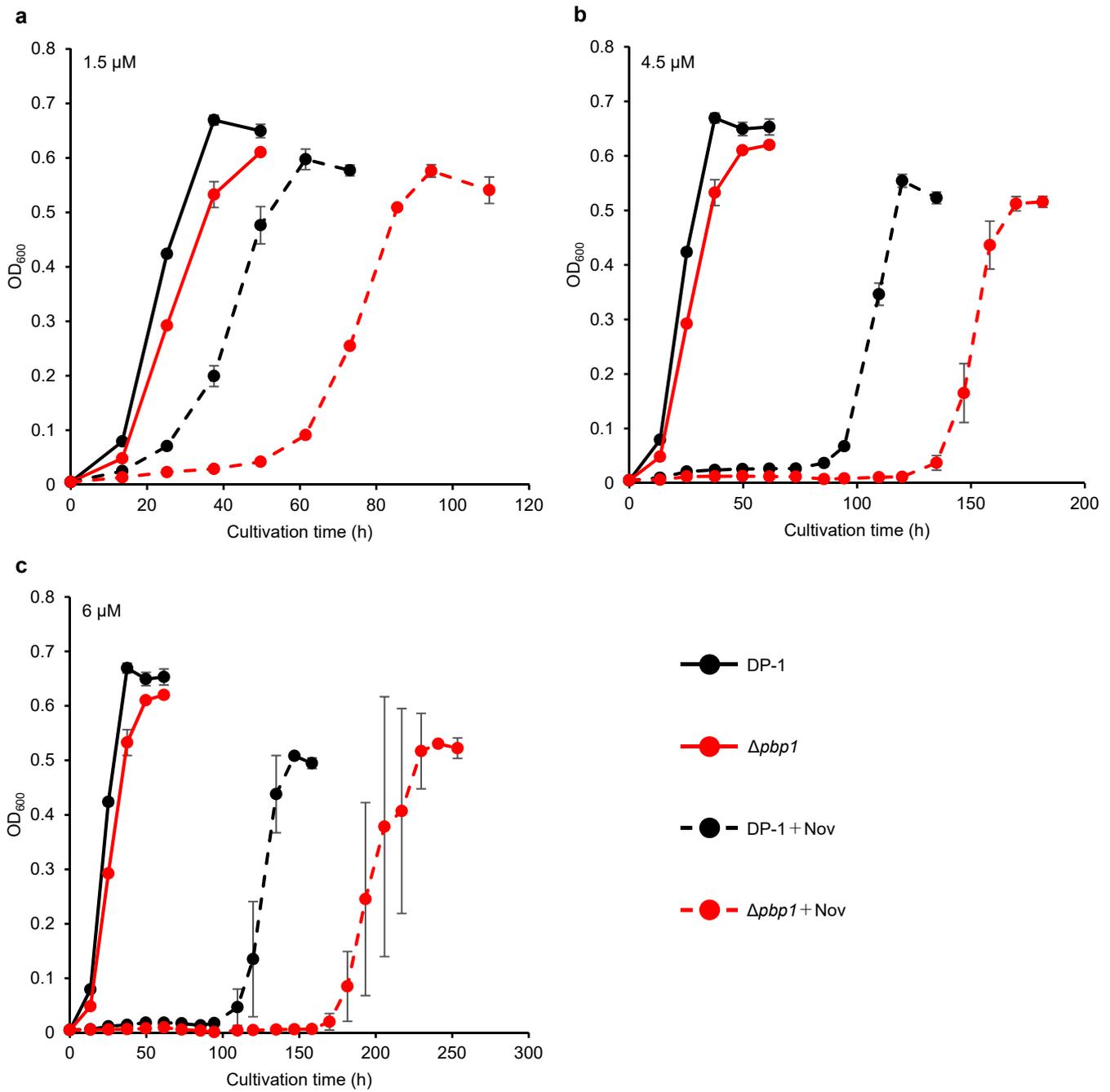
**Figure S1.** Growth curves of the *pbp1* deletion strain. Overnight cultures of the  $\Delta pbp1$  (HM-8) and DP-1 strains were inoculated into XTU liquid medium and cultivated at 50–70 °C (a–e) without shaking. The error bars indicate the mean  $\pm$  SD, calculated from triplicate experiments. Black line: the growth of DP-1; red line: the growth of  $\Delta pbp1$  (HM-8).



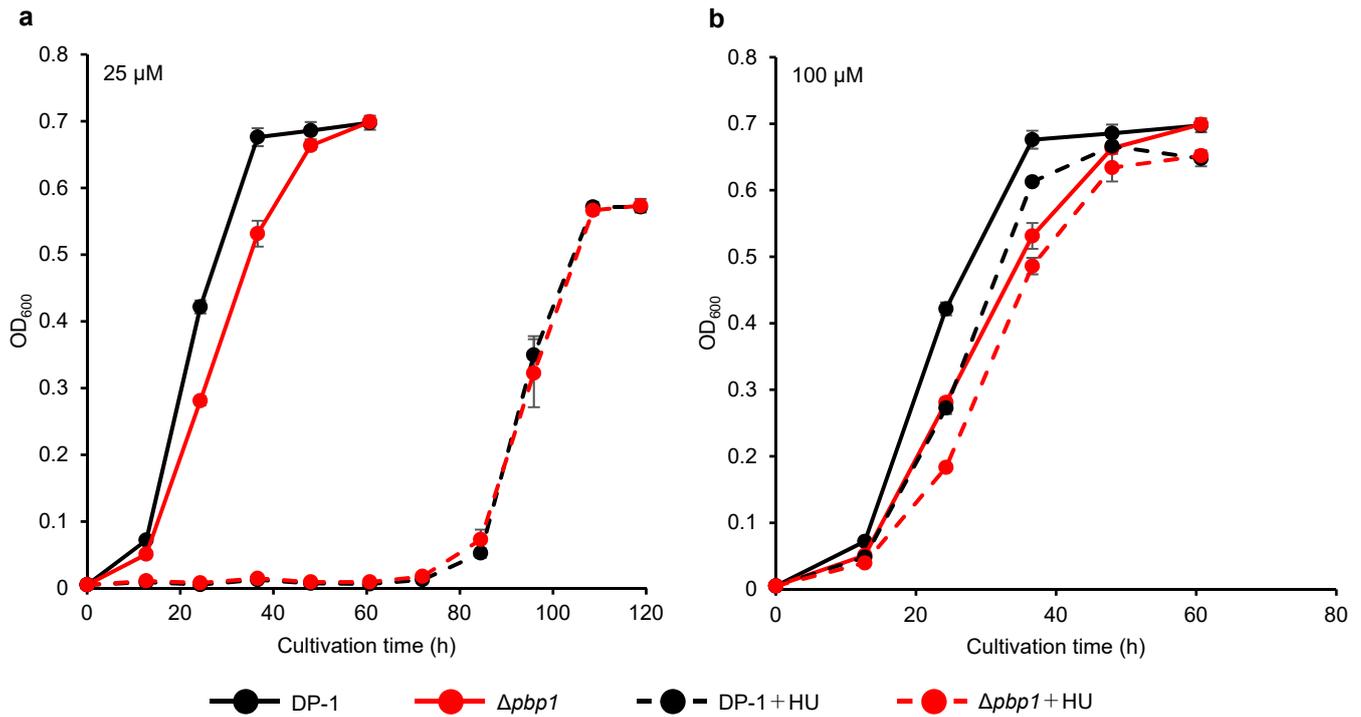
**Figure S2.** Growth of the *pbp1* deletion strain after UV-B irradiation. Overnight cultures of the  $\Delta pbp1$  (HM-8) and DP-1 strains were irradiated with UV for 20, 40, and 80 sec (400 (a), 800 (b), and 1600 J/m<sup>2</sup> (c)) and cultivated at 75 °C with shaking. +UV represents a UV-treated sample. The error bars indicate the mean  $\pm$  SD calculated from triplicate experiments. Black line: the growth of DP-1; red line: the growth of  $\Delta pbp1$  (HM-8).



**Figure S3.** Growth of the *pbp1* deletion strain in the presence of DNA-damaging agents. Overnight cultures of the  $\Delta$ *pbp1* (HM-8) and DP-1 strains were inoculated into liquid medium in the presence of DNA-damaging agents (cisplatin (70  $\mu$ M (a)) and 4-NQNO (1  $\mu$ M (b)) and cultivated at 75 °C with shaking. +A represents the growth with DNA-damaging agents. The error bars indicate the mean  $\pm$  SD, calculated from triplicate experiments. Black line: the growth of DP-1; red line: the growth of  $\Delta$ *pbp1* (HM-8).



**Figure S4.** Growth of the *pbp1* deletion strain in the presence of novobiocin. Overnight cultures of the  $\Delta pbp1$  (HM-8) and DP-1 strains were inoculated into liquid medium in the presence of novobiocin (1.5 (a), 4.5 (b), and 6  $\mu$ M (c)) and cultivated at 75 °C with shaking. +Nov represents the growth with novobiocin. The error bars indicate the mean  $\pm$  SD, calculated from triplicate experiments. Black line: the growth of DP-1; red line: the growth of  $\Delta pbp1$  (HM-8).



**Figure S5.** Growth of the *pbp1* deletion strain in the presence of HU. Overnight cultures of the  $\Delta pbp1$  (HM-8) and DP-1 strains were inoculated into liquid medium in the presence of HU (25 (a) and 100  $\mu$ M (b)) and cultivated at 75 °C with shaking. +HU represents the growth with HU. The error bars indicate the mean  $\pm$  SD, calculated from triplicate experiments. Black line: the growth of DP-1; red line: the growth of  $\Delta pbp1$  (HM-8).