

1 Supplemental Material

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3 **FIGURE LEGENDS**

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6 **Sup. Fig. 1 The effect of ROS/RNS-generating compounds on the**  
7 **expression levels of *Pbnd6* during the exponential growth phase**  
8 **of *P. brasiliensis* yeast cells.** Cell cultures and ROS/RNS-  
9 generating compound challenges were performed as described in  
10 the materials and methods section. The number of *Pbnd6*  
11 transcripts was determined and normalized as previously  
12 described. The concentrations of the compounds in each addition  
13 were as follows: H<sub>2</sub>O<sub>2</sub> (30 mM), menadione (0.5 mM), SNP (1 mM),  
14 rotenone (2 μM), and KCN (1 mM). The values represent the  
15 expression levels in comparison to the control, and they are  
16 shown as the averages ± SEMs of three independent assays.  
17 Asterisks indicate  $p < 0.05$ . The statistical analyses are  
18 described in the materials and methods section.

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20 **Sup. Fig. 2 Nucleotide sequence of the *Pbaox* gene, its deduced**  
21 **amino acids sequence, and conserved regions of catalytic**  
22 **domains.** Nucleotides are shown in small letters and amino acids  
23 in capital letters. The regularly formatted numbers represent  
24 nucleotide positions, and italicized numbers represent amino

1 acid positions. The intron region is underlined with a single  
2 line, and the two transmembrane domains are underlined with  
3 double lines. The start and stop codons are shown in bold. The  
4 predicted amino acids that are responsible for metal and  
5 ubiquinone binding are indicated by # and §, respectively.

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7 **Sup. Fig. 3 Alignment of the four primarily conserved regions**  
8 **among the alternative oxidases.** The numbers 1, 2, 3, and 4  
9 represent the conserved regions of LET, NERMHL, LEEEA, and RADE-  
10 H, respectively. The black boxes indicate the conserved amino  
11 acids among the AOXs from *P. brasiliensis* (accession number  
12 EEH19342.1), *H. capsulatum* (accession number AF133236), *C.*  
13 *albicans* (accession number AF116872), and *T. brucei brucei*  
14 (accession number TBU52964). The two transmembrane domains are  
15 underlined with double lines. The predicted amino acids that are  
16 responsible for metal and ubiquinone binding are indicated by #  
17 and §, respectively.

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19 **Sup. Fig. 4 The heterologous expression of *Pbaox* compromises the**  
20 **growth of *S. cerevisiae*.** The growth of *S. cerevisiae*/pYES-*Pbaox*  
21 and *S. cerevisiae*/pYES was monitored by measuring the optical  
22 density of the cell cultures at 600 nm over 72 h in liquid  
23 media. A, fermentable medium (glucose as carbon source). B, non-

1 fermentable medium (glycerol and ethanol as carbon sources). The  
2 graphs are representative of at least three independent assays.

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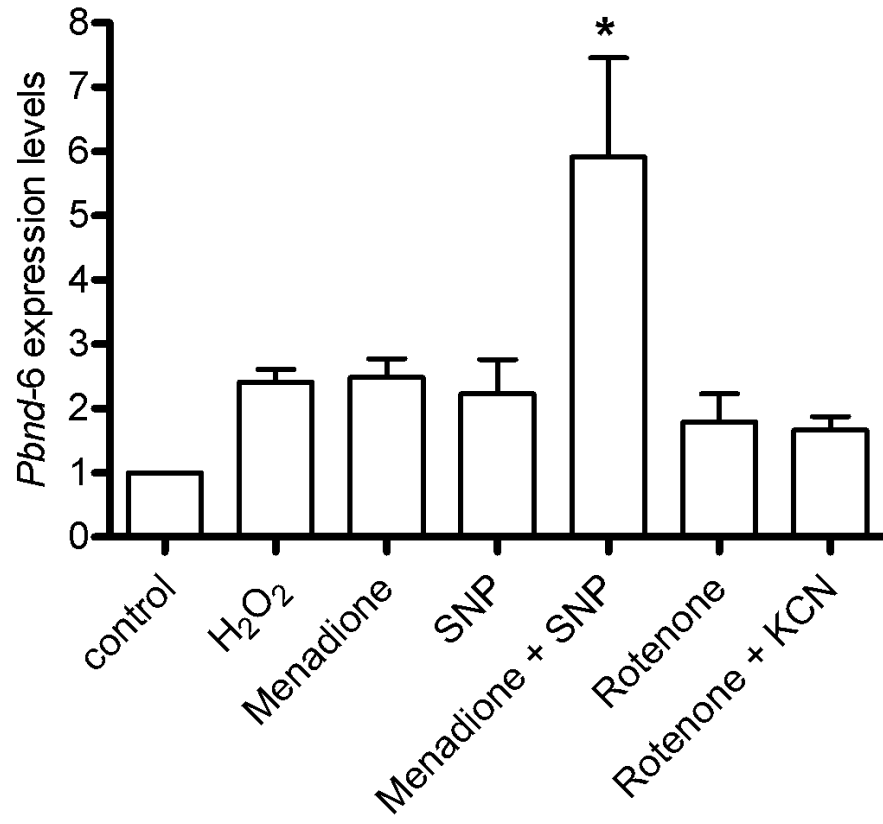
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Supplemental Figure 1

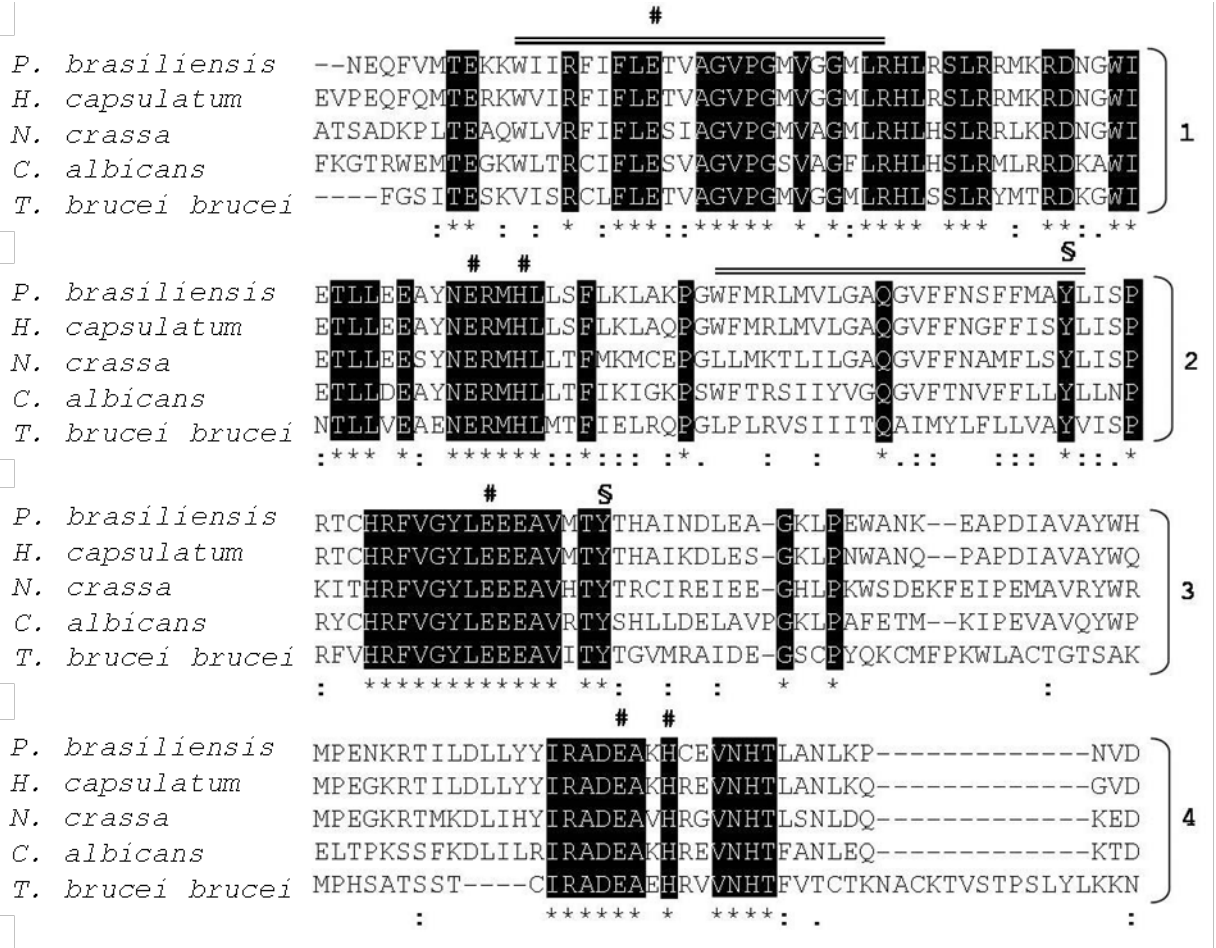


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## Supplemental Figure 2

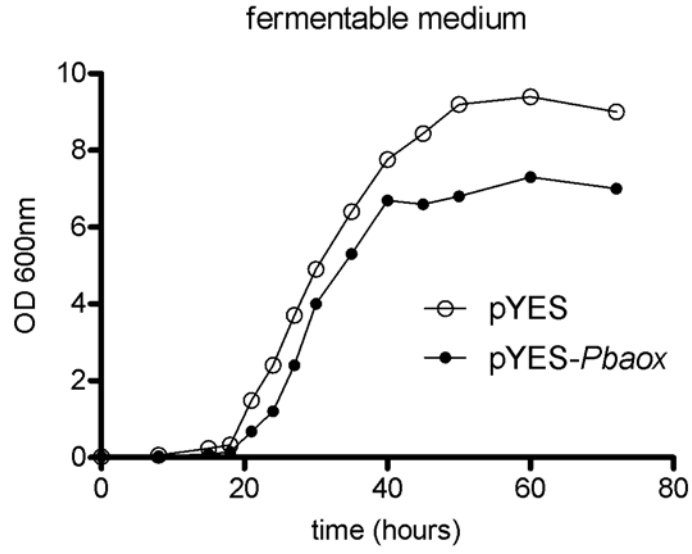
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 T 89  
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 290 L D L L Y Y I R A D E<sup>#</sup> A K H<sup>#</sup> C E V N H T 309  
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Supplemental Figure 3

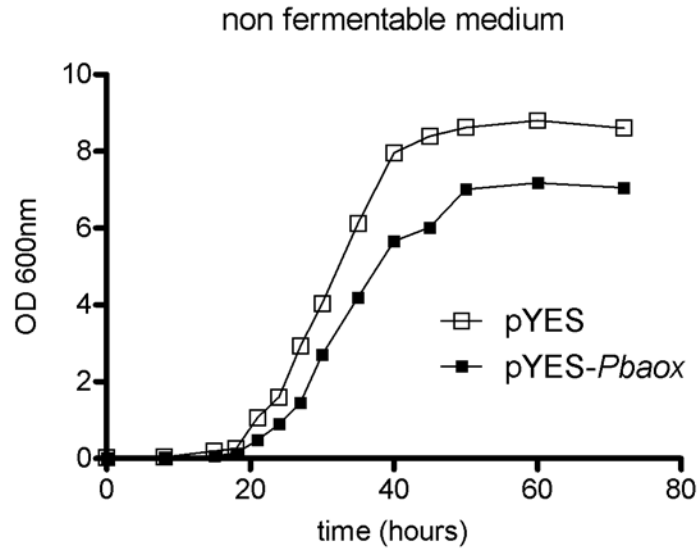


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### Supplemental Figure 4



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