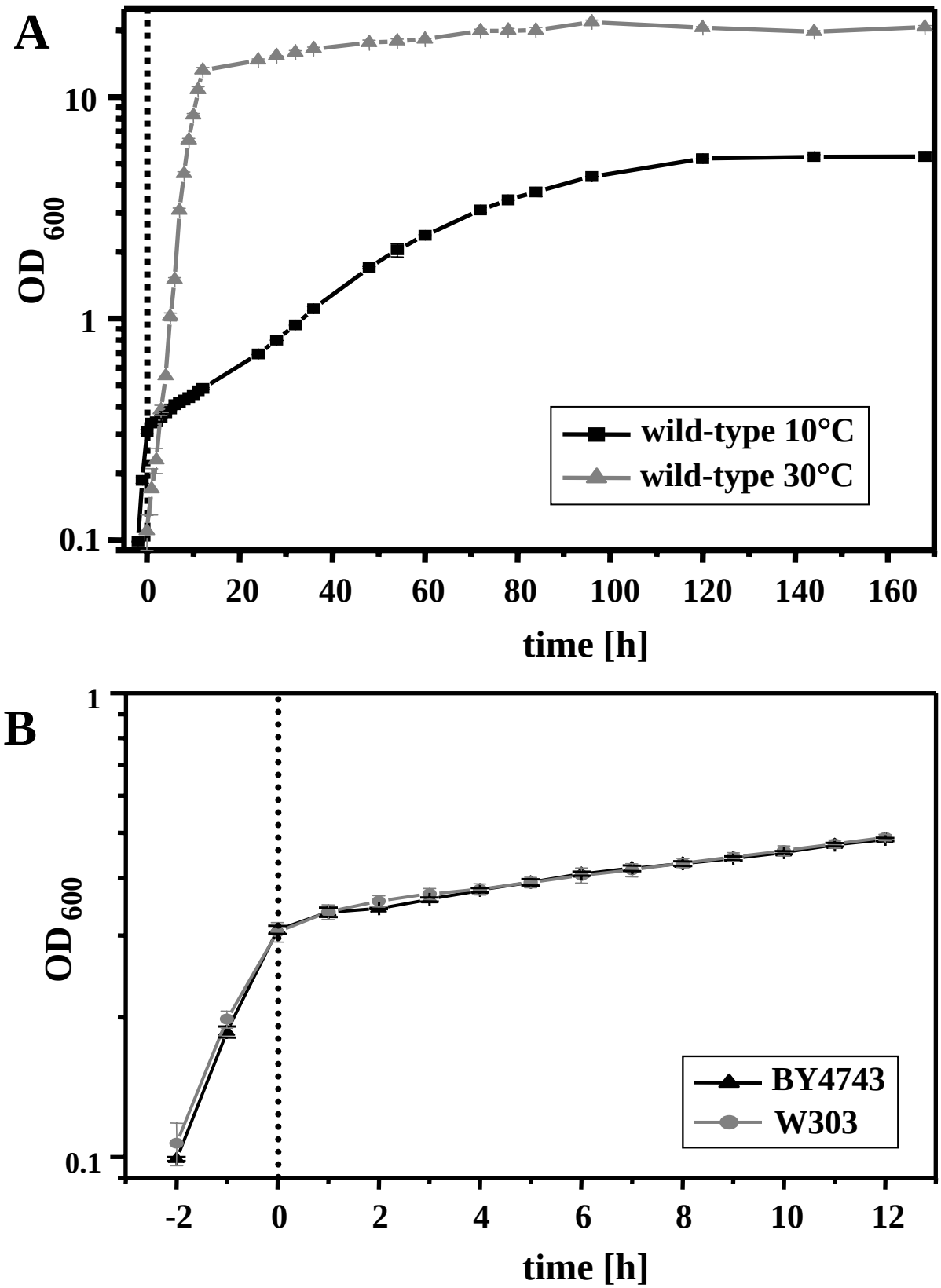
A
10
1
0.1
OD 600
0
20
40
60
80
100
120
140
160
time [h]
wild-type 10°C
wild-type 30°C
B
1
0.1
OD 600
-2
0
2
4
6
8
10
12
time [h]
BY4743
W303

Figure S1

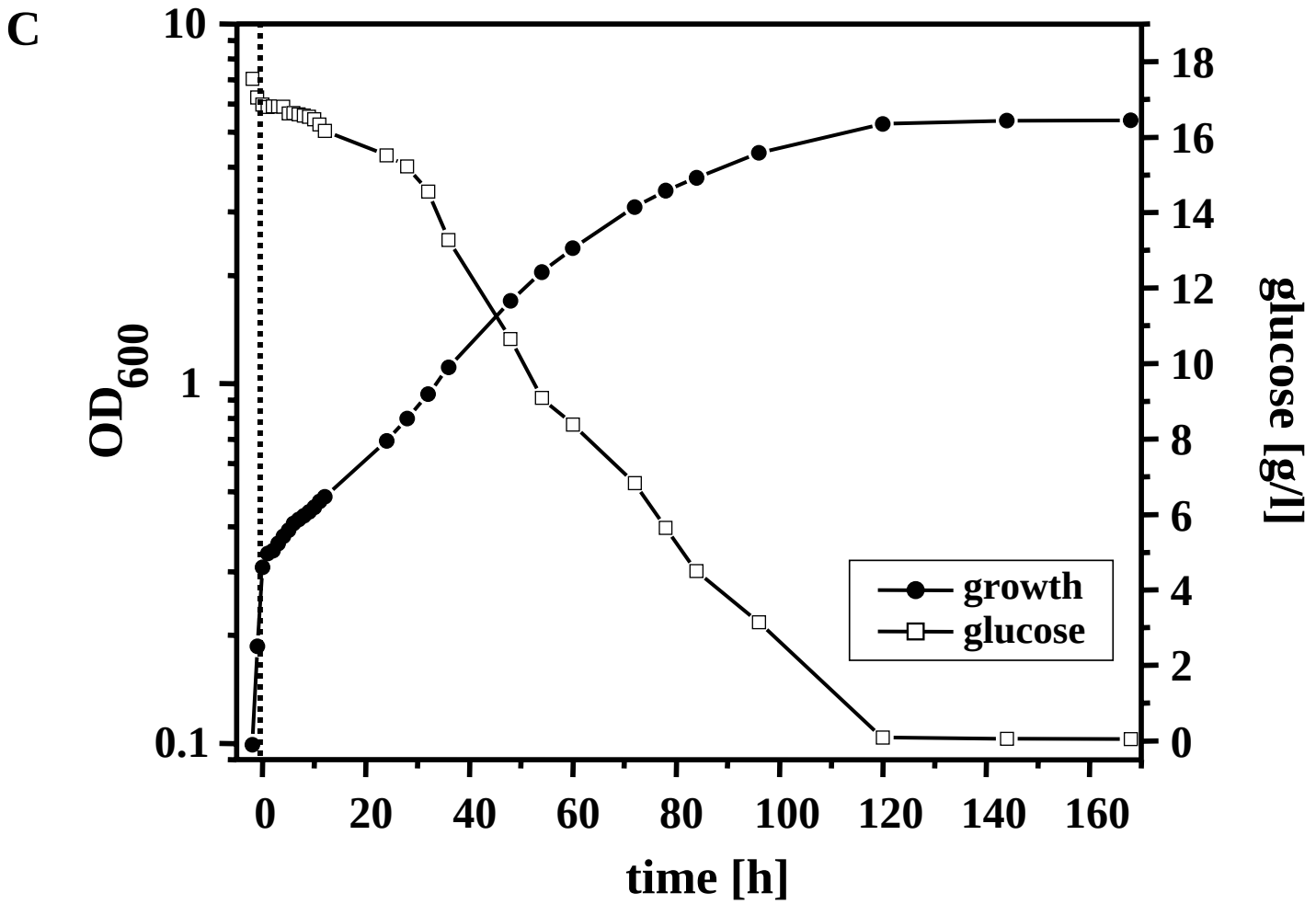
C
10
1
0.1
OD600
18
16
14
12
10
8
6
4
2
0
glucose [g/l]
0
20
40
60
80
100
120
140
160
time [h]
growth
glucose

Figure S1

D

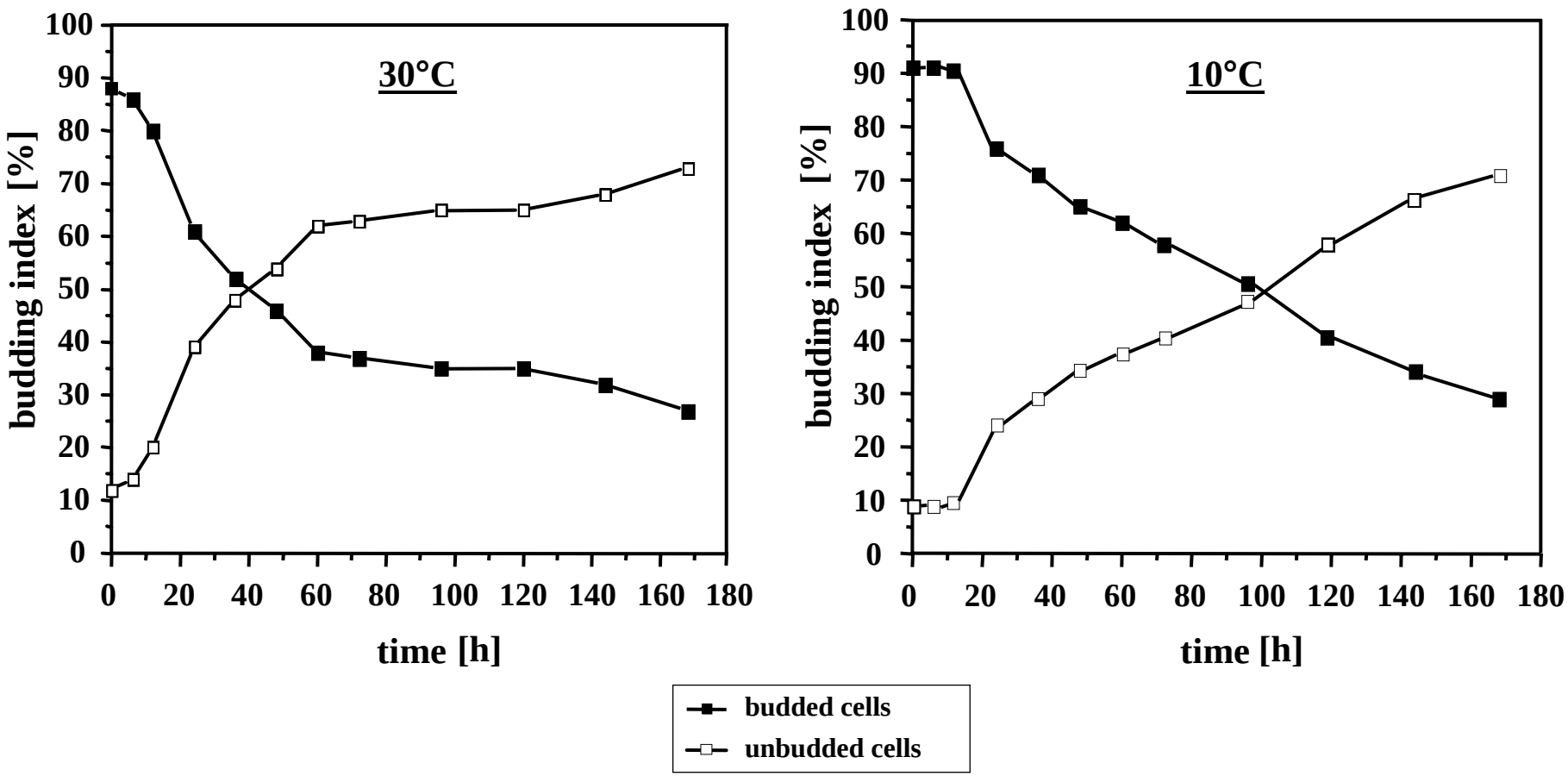

Figure S1

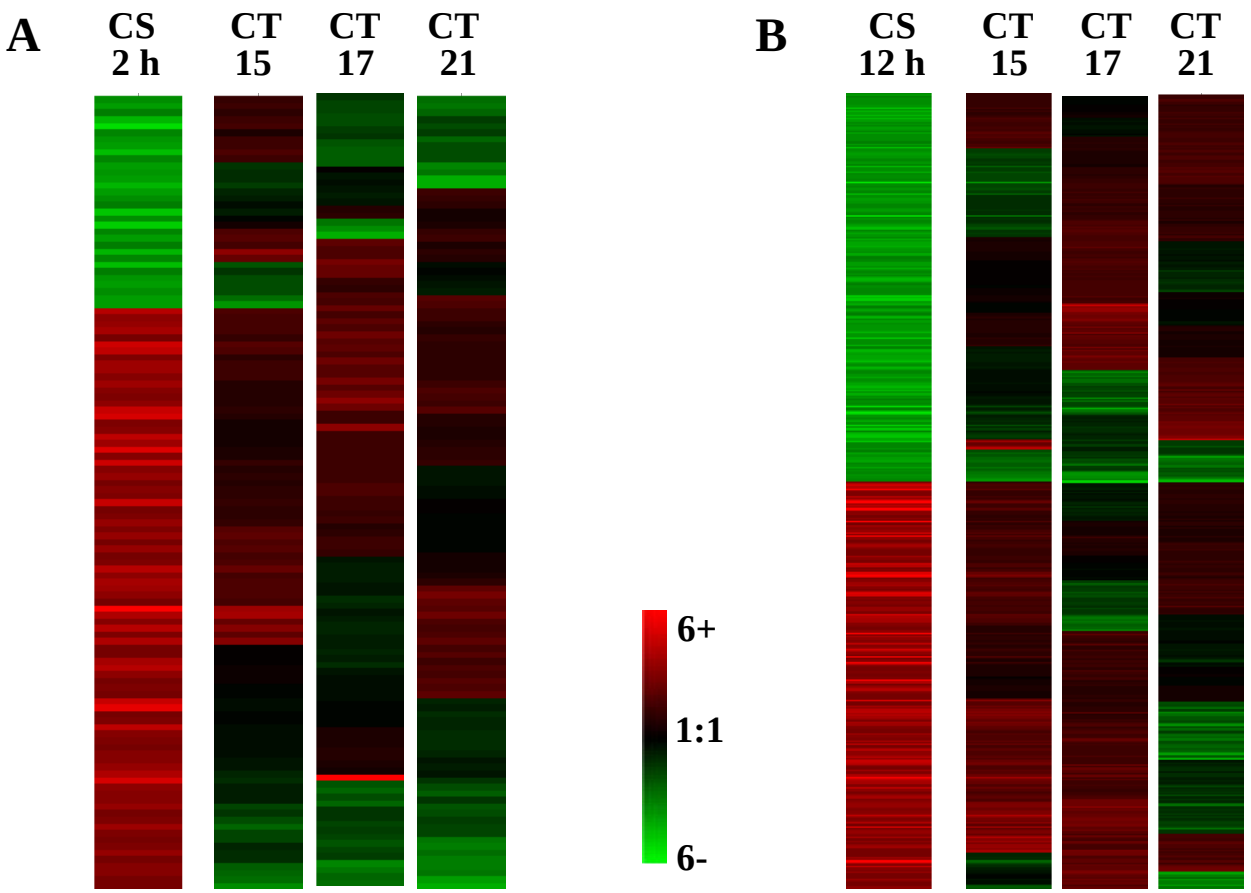

Figure S2

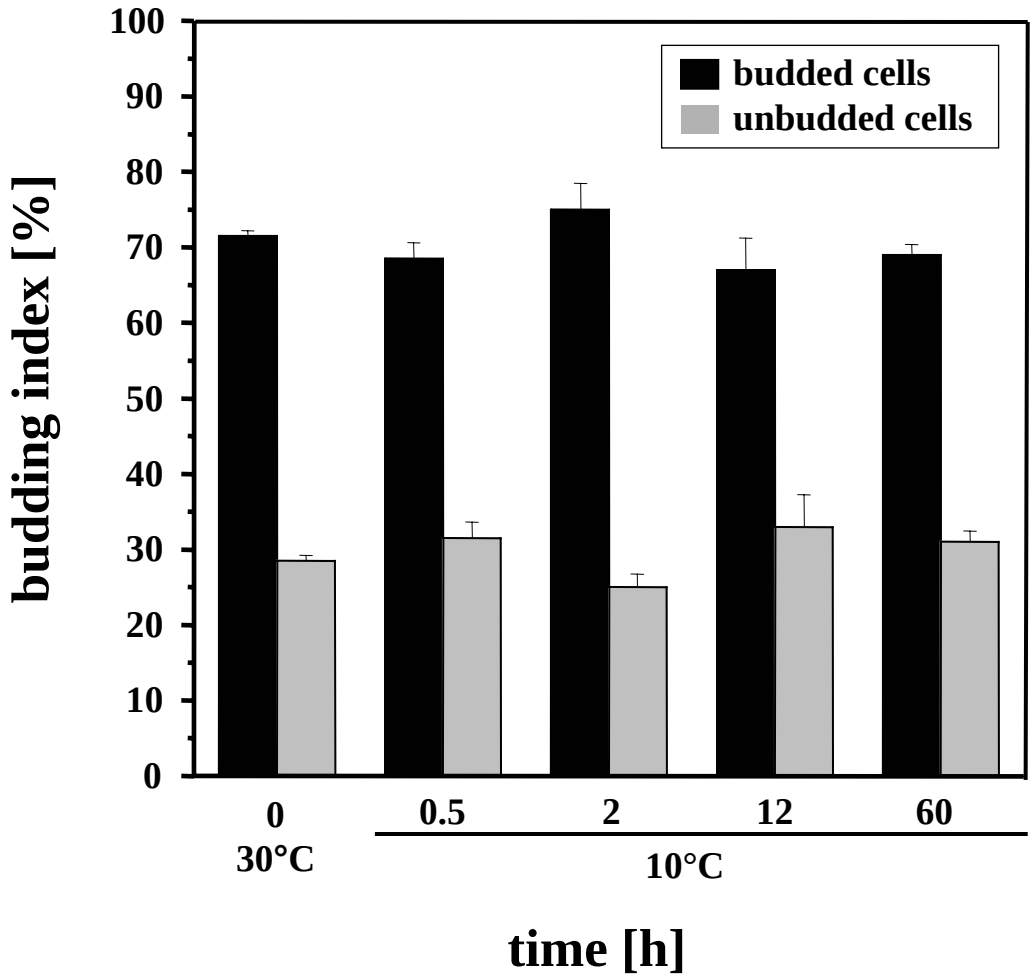
budding index [%]
100
90
80
70
60
50
40
30
20
10
0
budded cells
unbudded cells
0
30°C
0.5
2
12
60
10°C
time [h]

Figure S3

Supplementary figures

Figure S1: Growth and glucose consumption of S. *cerevisiae* at 10°C. Cultures were grown in YPD at 30°C over night, diluted to 0.05 OD_{600} in fresh YPD, and grown at 30°C to 0.3 OD_{600}. The cultures were then transferred to a 10°C water bath shaker, and samples were taken at the indicated times. **(A)** Growth of wild-type strain BY4743 at 30 and 10°C over a period of 168 h. **(B)** Growth of wild-type strains of different genetic background (BY4743, W303) for 12 h at 10°C. **(C)** Glucose concentration in the medium during growth of BY4743 at 10°C. The line indicates the temperature downshift. **(D)** Budding indices of BY4743 cells during growth at 10 and 30°C over a period of 168 h. At least 300 cells per time point were counted.

Figure S2: Comparison of ECR and LCR transcriptional profiles to experiments performed at different low temperatures. **(A)** ECR genes, represented by the 2-h time point (CS 2 h), were compared to experiments at continuous temperatures of 15, 17, and 21°C (Gasch *et al.,* 2000). **(B)** LCR genes, represented by the 12-h time point (CS 12 h), were compared to experiments at continuous temperatures of 15, 17, and 21°C (Gasch *et al.*, 2000). The other experiments were individually compared with CS 2 h and CS 12 h using GeneSpring (standard correlation; see MATERIALS AND METHODS for more details).

Figure S3: Budding indeces of yeast cultures used for microarray analysis. The fractions of budded and unbudded cells were determined for each time point. At least 300 cells

were counted per individual experiment; variations of three independent experiments are indicated by the error bars.