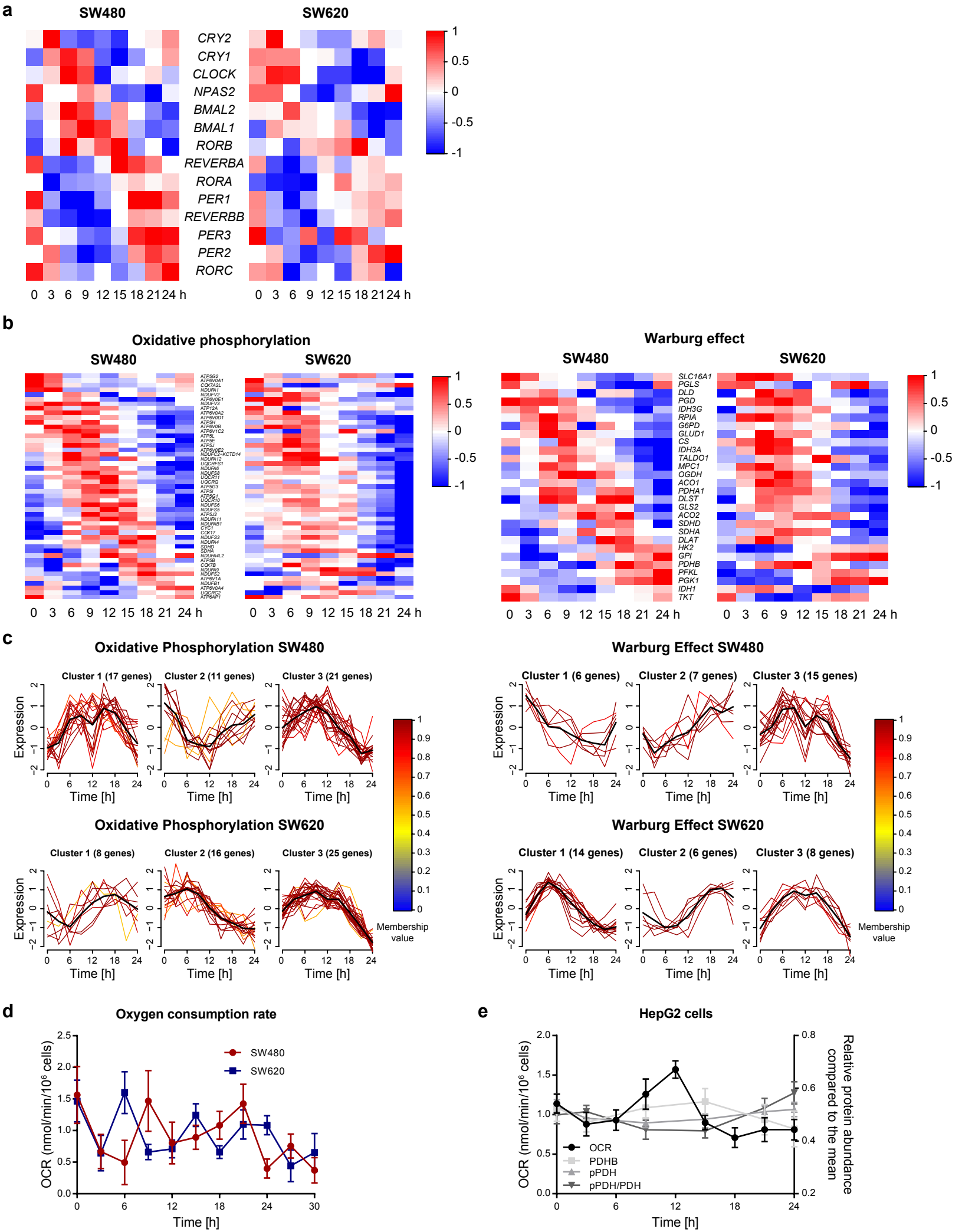
a
SW480
SW620
CRY2
CRY1
CLOCK
NPAS2
BMAL2
BMAL1
RORB
REVERBA
RORA
PER1
REVERBB
PER3
PER2
RORC
0 3 6 9 12 15 18 21 24 h
1
0.5
0
-0.5
-1
b
Oxidative phosphorylation
Warburg effect
SW480
SW620
SLC16A1
PGLS
DLD
PGD
IDH3G
RPIA
G6PD
GLUD1
CS
IDH3A
TALDO1
MPC1
OGDH
ACO1
PDHA1
DLST
GLS2
ACO2
SDHD
SDHA
DLAT
HK2
GPI
PDHB
PFKL
PGK1
IDH1
TKT
c
Oxidative Phosphorylation SW480
Cluster 1 (17 genes)
Cluster 2 (11 genes)
Cluster 3 (21 genes)
Warburg Effect SW480
Cluster 1 (6 genes)
Cluster 2 (7 genes)
Cluster 3 (15 genes)
Oxidative Phosphorylation SW620
Cluster 1 (8 genes)
Cluster 2 (16 genes)
Cluster 3 (25 genes)
Warburg Effect SW620
Cluster 1 (14 genes)
Cluster 2 (6 genes)
Cluster 3 (8 genes)
Expression
Time [h]
Membership value
d
Oxygen consumption rate
SW480
SW620
OCR (nmol/min/10^6 cells)
Time [h]
e
HepG2 cells
OCR
PDHB
pPDH
pPDH/PDH
Relative protein abundance compared to the mean