

**Table 4.**  $V_{\max}$  values measured under the *in vivo*-like conditions (in the absence of the phosphatase inhibitors) and the maximal fluxes through the glycolytic and fermentative enzymes. Maximal fluxes were calculated, as described in Experimental procedures, from the offline measured fluxes under anaerobic glucose-excess conditions in steady-state cells from an aerobic glucose-limited chemostat culture at a growth rate of  $0.1 \text{ h}^{-1}$ . Errors represent standard errors of the mean of at least three independent cell-free extracts from steady-state samples from a single chemostat culture.

Enzyme	<i>In vivo</i> -like $V_{\max}$ ( $\text{mmol}\cdot\text{min}^{-1}\cdot\text{g protein}^{-1}$ )	Flux ( $\text{mmol}\cdot\text{min}^{-1}\cdot\text{g protein}^{-1}$ )
HXK	$0.80 \pm 0.06$	$0.35 \pm 0.01$
PGI	$2.8 \pm 0.3$	$0.31 \pm 0.00$
PFK	$0.80 \pm 0.10$	$0.31 \pm 0.00$
ALD	$1.2 \pm 0.1$	$0.31 \pm 0.00$
TPI	$26 \pm 0$	$0.24 \pm 0.01$
GAPDH	$0.59 \pm 0.00$	$0.55 \pm 0.01$
PGK	$111 \pm 4$	$0.55 \pm 0.01$
GPM	$9.1 \pm 0.3$	$0.55 \pm 0.01$
ENO	$0.96 \pm 0.06$	$0.55 \pm 0.01$
PYK	$3.1 \pm 0.1$	$0.55 \pm 0.01$
PDC	$1.5 \pm 0.1$	$0.55 \pm 0.01$
ADH	$56 \pm 2$	$0.55 \pm 0.01$