

Table 2 Control by different ATP-consuming reactions over each other

Relative elasticities were calculated as the mean fractional inhibition of process activity caused by addition of 7.5, 10 and 12.5 nM myxothiazol as shown in Figure 2, scaled to the elasticity of protein synthesis to $\Delta\psi$ and ATP. The small rate of the unidentified ATP consumers at each myxothiazol concentration is calculated by subtracting the sum of the identified rates from the total rate, hence its value is very error-prone. The calculated relative elasticity of -1.80 for the unidentified processes to $\Delta\psi$ was not significantly different from zero and was therefore ignored; a value of 0.00 was arbitrarily assumed. This assumption made little difference to the values of the control coefficients below. Absolute elasticities to $\Delta\psi$ were calculated from relative elasticities as described in the text. Control coefficients of the different processes over the individual ATP consumers were calculated from elasticities and fluxes using eqns. (2) and (3) as described in the text.

Process	Relative elasticity to $\Delta\psi$ and ATP	Absolute elasticity to $\Delta\psi$	$C^{\text{Protein synth}}$	$C^{\text{Na cycle}}$	$C^{\text{Ca cycle}}$	$C^{\text{RNA/DNA synth}}$	C^{Other}
$\Delta\psi$ production		-19.1	0.15	0.12	0.08	0.16	0.00
$\Delta\psi$ consumption		2.6					
Protein synthesis	1.00	3.15	0.95	-0.04	-0.03	-0.05	0.00
Na ⁺ /K ⁺ -ATPase	0.83	2.59	-0.02	0.98	-0.01	-0.03	0.00
Ca ²⁺ -ATPase	0.52	1.65	-0.02	-0.02	0.99	-0.03	0.00
RNA/DNA synthesis	1.10	3.48	-0.04	-0.03	-0.02	0.96	0.00
Unidentified ATP consumers	0.00	0.00	-0.01	-0.01	-0.01	-0.02	1.00