

TABLE 1
Measured parameters

The following parameters were measured using the techniques outlined in column 2 and described in detail previously (15) or under "Experimental Procedures." Intracellular rates are reported for cultures under three experimental conditions: during steady state growth on 100 mM acetate (column 3), in a transition period following the addition of 20 mM glucose to cells growing on 100 mM acetate (column 4), and during steady-state growth on 20 mM glucose and 100 mM acetate (column 5). The measurement of the transition rates was initiated 20 min after the initial exposure to glucose for all determinations except V_{AcR}^{Glu} which was measured 10 min after the addition of glucose. All values are the average from a number of determinations. ND, not determined.

Parameter	Outline of experimental procedure	Observed rates		
		Acetate	Transition to glucose	Acetate and glucose
V_{sapon}^{Ac}	Rate of radioactive acetate incorporation into saponified, chloroform-soluble constituents (expressed in acetate units)	3.1	2.4	3.5
V_{sapon}^{Glu}	Rate of radioactive glucose incorporation into saponified, chloroform-soluble constituents (expressed in acetate units)		0.3	1.5
$V_{CO_2}^{Ac}$	Rate of $^{14}CO_2$ production from radioactive acetate (in CO_2 units)	150	4	<4
V_{CC}^{Ac}	Rate of radioactive acetate incorporation into cellular constituents (in acetate units)	68	18	25
V_{AcR}^{Glu}	Rate of radioactive acetate efflux from cells metabolizing radioactive glucose (expressed in acetate units)		9.1	20.7
V_{Asx}^{Ac}	Rate of radioactive acetate incorporation into cellular aspartate and asparagine (expressed in acetate units)	ND	1.7	2.9
V_{Asx}^{Glu}	Rate of radioactive glucose incorporation into cellular aspartate and asparagine (expressed in acetate units)		2.2	6.3
V_{O_2}	Rate of oxygen uptake (in O_2 units)	183	143	ND
	Doubling time of culture (min)	145	77	70