

TABLE IV

Parameters of the branch point enzymes

Kinetic constants and intracellular concentrations of enzymes and substrates at the branch point of the Krebs cycle and the glyoxylate shunt. These parameters were used to calculate the flux through the branch point. Assay conditions are described under "Experimental Procedures."

Isocitrate lyase constants

$$K_m \text{ for isocitrate} = 604 \mu\text{M}$$

$$V_{\text{max}} = 289 \text{ mM/min}$$

Isocitrate dehydrogenase constants

$$K_m \text{ for isocitrate} = 8 \mu\text{M}$$

$$K_m \text{ for NADP}^+ = 22 \mu\text{M}$$

$$V_{\text{max}} = 126 \text{ mM/min}$$

Intracellular concentrations

$$\text{Total NADP}^+ = 50 \mu\text{M}$$

$$\text{Total isocitrate} = 160 \mu\text{M}$$

$$\text{Isocitrate lyase} = 200 \mu\text{M}$$

$$\text{Isocitrate dehydrogenase} = 40 \mu\text{M}$$

$$\text{"Free" isocitrate} = 95 \mu\text{M}$$
