

Citric Acid Cycle

Stage	Enzyme	Carbon atoms		Oxidation	Hi E bond	Modulators		
		Entering	Leaving			Coenzymes	Activators	Inhibitors
Pyruvate to acetate	pyruvate dehydrogenase complex		CO ₂	NADH/H ⁺		TPP, lipoic acid, CoASH, FAD	pyruvate, Ca ⁺²	acetylCoA, ATP, NADH
Acetate Enters	citrate synthase	acetylCoA						citrate, succinylCoA
Oxidative decarboxylation	isocitrate dehydrogenase		CO ₂	NADH/H ⁺			ADP, Ca ⁺²	ATP, NADH
	α-ketoglutarate dehydrogenase		CO ₂	NADH/H ⁺		TPP, lipoic acid, CoASH, FAD	Ca ⁺²	succinylCoA
Regenerate oxaloacetate	succinylCoA synthetase				GTP			
	succinate dehydrogenase			FADH ₂				
	malate dehydrogenase			NADH/H ⁺				

