

**Table 7 - The presence (+) or absence (-) of enzymes in the organisms used in the TCA and rTCA experiments. rTCA organisms:**  
*Chlorobaculum tepidum* (**cte**), *Chlorobium limicola* (**cli**), *Sulfurimonas denitrificans* (**tdn**), *Aquifex aeolicus* (**aee**), *Hydrogenobacter thermophilus* (**lth**), *Nautilia profundicola* (**nam**). **TCA organisms:** *Bordetella bronisepitica* (**bbr**), *Staphylococcus saprophyticus* (**ssp**), *Myxococcus xanthus* (**mxa**), *Lepospira interrogans serovar lai* (**lil**), *Helicobacter pylori* (**hpa**), *Listeria innocua* (**lin**), *Escherichia coli* (**eco**), *Shewanella oneidensis* (**son**), *Anaplasma marginale* St. *Maries* (**ama**), *Bdellovibrio bacteriovorus* (**bba**), *Bordetella parapertussis* (**bpa**), *Bordetalla bronchiseptica* (**bbr**), *Geobacillus kaustophilus* (**gka**), *Legionella pneumophila* *Lens* (**lpf**), *Neisseria gonorrhoeae* (**ngo**), *Sinorhizobium meliloti* (**sme**).

EC Number	Enzyme Name	rTCA organisms						TCA organisms														
		cte	cli	tdn	aae	hth	nam	bbr	ssp	mxa	lil	hpa	lin	eco	son	ama	bba	bpa	bbr	gka	lpf	ngo
Common Enzymes																						
4.2.1.3	aconitase	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1.1.1.42	isocitrate dehydrogenase	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	+	+
6.2.1.5	succinate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
4.2.1.2	thiokinase																					
4.2.1.2	fumarase	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1.1.1.37	malate dehydrogenase	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
rTCA Specific Enzymes																						
1.2.7.3	2-oxoglutarate synthase	+	+	+	-	+	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3.3.8	ATP citrate synthase	+	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3.1.6	fumarate reductase	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCA Specific Enzymes																						
2.3.3.1	citrate (Si)-synthase	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1.2.4.2	alpha-ketoglutarate dehydrogenase	-	+	-	-	-	-	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+
1.3.99.1	succinate dehydrogenase	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+