

## Phosphogluconate Pathway

Stage	Enzyme	Reaction Characteristics		Comments	
		Noncarbohydrates		Regulation?	
		Substrate	Product		
Oxidative	glucose-6-phosphate dehydrogenase	NADP <sup>+</sup>	NADPH	yes	Regulation by NADPH/NADP <sup>+</sup> ratio
	gluconolactonase	H <sub>2</sub> O			
	6-phosphogluconate dehydrogenase	NADP <sup>+</sup>	NADPH, CO <sub>2</sub>		
Non-oxidative	transketolase			no	transfers 2C unit from ketose to aldose
	transaldolase			no	transfers 3C unit from ketose to aldose