

Supplementary material:

Table 1: Information about the two genes encoding G-6-P synthase in *R. oryzae*. 'bp' represent base pairs and 'aa' represent amino acids.

	Gene 1	Gene 2
Locus	RO3G_04247.3	RO3G_14807.3
Chromosome number	7	15
Nucleotide sequence (including introns)	2357 bp	2358 bp
Coding sequence (exons only)	2064 bp	2064 bp
Translated sequence	688 aa	688 aa

Table 2: Compilation of Glide SP and Induced fit XP docking calculations using Schrödinger-Maestro v8.5 and v9.1, respectively.

G-6-P synthase of various organisms	FMDP			ADGP		
	Residues	Glide Score	IFD score	Residues	Glide Score	IFD score
RO3G_04247.3				Cys 379		
				Thr 381(2)		
	Gln 427			Ser 382		
	Ser 428(2)	-8.48	-993.94	Val 425	-13.97	-1000.37
	Ala 681			Gln 427		
RO3G_14807.3	Lys 682(2)			Ser 428		
				Val 477		
				Glu 567		
	Thr 381(2)			Ser 382		
	Ser 382(2)			Cys 379(2)		
1XFF- <i>E. coli</i> Glutaminase domain of G6P synthase	Gln 427(2)	-7.93	-934.19	Gln 427	-13.59	-932.45
	Thr 431			Gly 476		
	Val 684			Ser 683		
	Cys 1					
	Arg 73					
2BPL- <i>E. coli</i> G6P synthase	Trp 74			Thr 302		
	Thr 76	-9.75	-469.44	Gln 348		
	His 86			Thr 352(2)	-13.31	-1142.98
	Gly 99			Ser 401		
	Asp 123			Glu 488		
			Val 605			