

Supplementary Material

Table S1: Comparison of the Pho regulon genes. The homologs of Pho regulon genes in *Syn* OS-B' and *Syn* OS-A are compared to each other at the nucleotide (NAID) and amino acid (AAID) levels.

Gene (s) name	<i>Syn</i> OS-B' locus tag	<i>Syn</i> OS-A locus tag	NAID	AAID
<i>phoR</i>	CYB_0858	CYA_2352	84%	87%
<i>phoB</i>	CYB_2856	CYA_1033	89%	92%
<i>phoA</i>	CYB_1198	CYA_0781	92%	94%
<i>phoX</i>	CYB_1988	CYA_1696	91%	93%
<i>phoD</i>	CYB_0684	CYA_2506	89%	95%
<i>surE-1</i>	CYB_0884	CYA_0967	88%	95%
<i>surE-2</i>	CYB_1427	CYA_0017	85%	92%
<i>phoH</i>	CYB_2320	CYA_1201	89%	93%
<i>npp</i>	CYB_0274	CYA_1059	88%	91%
<i>nucH</i>	CYB_2765	CYA_0117	83%	88%
<i>ppx</i>	CYB_1493	CYA_2432	90%	91%
<i>ppk</i>	CYB_2082	CYA_2477	89%	94%
<i>pstS-1, pstC-1, pstA-1, pstB-1</i>	CYB_1077-74	CYA_1558-55	81-84%	86-89%
<i>pstS-2, pstC-2, pstA-2, pstB-2</i>	CYB_1915-12	CYA_1735-32	96-98%	97-99%
<i>phoU</i>	CYB_2526	CYA_0182	94%	95%
<i>phnC-1, phnD-1, phnE-1</i>	CYB_0159-61	None		
<i>phnG-phnM</i>	CYB_0162-68	None		
<i>phnD, phnD-2, phnD-3</i>	CYB_1464-69	None		
<i>phnC-2, phnE-2, phnE-3</i>				
<i>phnE-4, phnD-4, phnC-3</i>	CYB_0011-12, 09	None		
<i>ugpB upgA</i>	CYB_2477-78	CYA_2785-86	87-91%	94-95%

Table S2: Amino-acid level identity of Phn transporter components from the *Syn* OS-B' genome.

	<i>phnC-1</i> CYB_0159	<i>phnC-2</i> CYB_1467	<i>phnD</i> CYB_1464	<i>phnD-1</i> CYB_0160	<i>phnD-2</i> CYB_1465	<i>phnD-3</i> CYB_1466	<i>phnE-1</i> CYB_0161	<i>phnE-2</i> CYB_1468	<i>phnE-3</i> CYB_1469
<i>phnC-2</i> CYB_1467	33%								
<i>phnC-3</i> CYB_009	21%	21%							
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<i>phnD-1</i> CYB_0161			<10%						
<i>phnD-2</i> CYB_1465			<10%	16%					
<i>phnD-3</i> CYB_1466			<10%	20%	68%				
<i>phnD-4</i> CYB_0011			<10%	26%	51%	53%			
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<i>phnE-2</i> CYB_1468							32%		
<i>phnE-3</i> CYB_1469							29%	32%	
<i>phnE-4</i> CYB_0012							12%	10%	10%