



**Figure S1.** A) The relative abundance of probiotic *Lp082*. B) The correlation between the abundance and SNP number of *Lp082*. C) The heatmap showing the presence or absence of SNPs detected in all samples. The samples in each group are shown in columns, while the detected SNPs with gene annotation are displayed in the rows.

**Table S1. The impacts of different prebiotics on the growth of *Lp082***

The impacts of different prebiotics on the growth of <i>Lp082</i>								
	0h	2h	4h	6h	8h	10h	12h	14h
Galactooligosaccharide (GOS)	0.05	0.15	0.43	1.37	1.76	1.88	1.95	1.97
	0.06	0.16	0.42	1.37	1.76	1.88	1.97	1.97
	0.06	0.15	0.43	1.36	1.76	1.89	1.97	1.96
<b>GOS Average OD600</b>	0.06	0.16	0.43	1.37	1.76	1.88	1.97	1.97
Xylooligosaccharide (XOS)	0.06	0.18	0.57	1.08	1.22	1.59	1.68	1.67
	0.07	0.19	0.56	1.09	1.23	1.58	1.66	1.68
	0.07	0.18	0.58	1.07	1.24	1.60	1.64	1.67
<b>XOS Average OD600</b>	0.07	0.18	0.57	1.08	1.23	1.59	1.66	1.67
Fructo-oligosaccharide (FOS)	0.08	0.09	0.27	0.59	1.16	1.49	1.64	1.71
	0.07	0.10	0.28	0.60	1.15	1.48	1.64	1.70
	0.07	0.09	0.27	0.58	1.14	1.48	1.64	1.69
<b>FOS Average OD600</b>	0.07	0.09	0.27	0.59	1.15	1.48	1.64	1.70
Stachyose	0.08	0.19	0.52	0.75	0.89	0.93	0.99	1.04
	0.07	0.18	0.54	0.75	0.90	0.94	1.00	1.04
	0.08	0.19	0.53	0.76	0.89	0.94	0.99	1.04
<b>Stachyose Average OD600</b>	0.07	0.19	0.53	0.75	0.89	0.94	0.99	1.04
Inulin	0.07	0.18	0.56	0.82	1.11	1.15	1.16	1.16
	0.07	0.19	0.56	0.83	1.11	1.16	1.16	1.16
	0.06	0.19	0.55	0.82	1.11	1.16	1.16	1.16
<b>Inulin Average OD600</b>	0.07	0.19	0.56	0.82	1.11	1.16	1.16	1.16