

WHHS–China raw data

Absorption efficiency of glyphosate by phnE1E2 engineered bacteria

	Group B			Group C	
	BL21/pSB1A3			BL21/pSB1A3-phnE1E2	
	B:Y1	B:Y2	B:Y3	C:Y1	C:Y2
	82.9	82.7	79.5	76.2	78.9
	76.7	75.6	74.7	61.8	57.8

Time curve of glyphosate uptake by phnE1E2 engineered bacteria

	Group A			Group B		
	BL21			BL21/pSB1A3-phnE1E2		
⊗	A:Y1	A:Y2	A:Y3	B:Y1	B:Y2	B:Y3
	81.3	79.1	77.3	81.3	79.3	80.1
	78.7	75.6	76.3	71.1	78.2	73.5
	77.7	75.3	72.0	69.2	70.4	67.4
	78.3	74.1	73.7	62.8	64.3	67.4
	77.3	71.8	71.8	61.2	60.4	65.1
	77.0	73.9	70.3	56.9	59.8	62.4

Degradation of glyphosate by phnE1E2–phnJ engineering bacteria

	Group A	Group B	Group C
	BL21	BL21/phnE1E2	BL21/phnE1E2-phnJ
⊗			
tl	6.02	15.78	14.37
tl	5.82	13.38	12.82
tl	5.98	16.92	16.94

Degradation test of AMPA by phnO

	Group A	Group B
	BL21	BL21/phnO
	0.360	12.140
	0.810	10.660
	0.940	14.130

Time curve of AMPA degradation by phnO

X	Group A			Group B		
X Title	BL21			BL21/phnO		
X	A:Y1	A:Y2	A:Y3	B:Y1	B:Y2	B:Y3
1	0.972	0.938	0.982	0.9119	0.9324	0.9493
3	0.963	0.984	0.975	0.8676	0.8364	0.8499
5	0.940	0.987	0.976	0.8217	0.8320	0.8007

phnO enzyme kinetics curve

X	Group A		
X Title	Data Set-A		
X	A:Y1	A:Y2	A:Y3
4.0	0.15100000	0.16300000	0.15900000
3.0	0.14700000	0.15600000	0.15400000
2.0	0.12800000	0.14500000	0.14700000
1.0	0.12500000	0.12600000	0.11400000
0.5	0.08200000	0.06900000	0.08300000

Cold-induced promoter testing

X	Group A			Group B		
X Title	16°C			37°C		
X	A:Y1	A:Y2	A:Y3	B:Y1	B:Y2	B:Y3
0	49.96	20.030000	45.9800000	14.09	13.880000	28.9600000
2	105.30	77.670000	78.5700000	27.18	22.580000	19.4300000
6	143.25	162.840000	135.6000000	14.82	27.230000	18.6900000
8	241.24	292.830000	222.4400000	42.40	23.720000	32.4200000

Cold-induced suicide system testing

Group A	Group B	Group C	Group D
BL21+37°C	BL21+16°C	BL21-lysis+37°C	BL21-lysis+16°C
0.78	0.52	0.77000	0.21000
0.75	0.57	0.76000	0.26000
0.97	0.65	0.83000	0.17000