

Table S2 Parental strains and fusants detected in rat co-colonization model

Mating	Inoculum	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Fusants				
										Parent 1	Parent 2	Detected ^{a,b}		
OD8916α x														t = 28
W43a		t = 7 d		t = 14 d		t = 21 d		t = 28 d		t = 7 d	t = 14 d	t = 21 d	d	
	white	Rat1	2.7E+03	3.0E+02	8.4E+03	0.0E+00	1.4E+04	0.0E+00	4.3E+03	0.0E+00	70	10	0	0
		Rat2	2.2E+03	2.5E+02	1.1E+04	0.0E+00	1.1E+04	5.8E+02	1.7E+03	0.0E+00	80	20	0	0
		Rat3	2.9E+01	1.5E+00	1.5E+04	7.7E+02	1.8E+04	0.0E+00	4.5E+03	0.0E+00	0	0	0	0
t = 28														
	white	Rat1	3.7E+02	3.0E+02	6.6E+02	4.4E+02	3.2E+03	3.2E+03	2.1E+02	4.1E+03	10	10	0	0
		Rat2	3.8E+02	4.6E+02	2.4E+02	2.0E+02	1.8E+03	2.8E+03	5.6E+02	5.1E+03	0	0	0	0
		Rat3	3.0E+02	2.0E+02	6.7E+02	1.0E+03	3.3E+03	4.9E+03	3.4E+02	6.5E+03	30	0	0	0
t = 28														
	opaque	Rat1	3.7E+02	3.0E+02	6.6E+02	4.4E+02	1.2E+03	2.2E+03	1.2E+02	2.3E+03	129	104	30	0
		Rat2	3.8E+02	4.6E+02	2.4E+02	2.0E+02	5.8E+02	8.7E+02	6.3E+02	5.6E+03	82	0	0	0
		Rat3	3.0E+02	2.0E+02	6.7E+02	1.0E+03	1.2E+03	1.8E+03	1.3E+02	2.5E+03	110	50	0	0

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Table S2, continued

Mating	Inoculum	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Fusants				
												Detected ^{a,b}				
																t = 28
			t = 7 d	t = 14 d	t = 21 d	t = 28 d	t = 7 d	t = 14 d	t = 21 d	t = 28 d						
	white	Rat1	1.3E+03	8.7E+02	3.7E+03	0.0E+00	1.1E+03	0.0E+00	5.7E+02	0.0E+00	30	30	0	0		
		Rat2	2.4E+02	2.0E+02	2.8E+03	3.1E+02	1.0E+03	0.0E+00	3.6E+02	0.0E+00	10	50	10	0		
		Rat3	1.1E+03	2.8E+02	4.0E+03	0.0E+00	9.9E+02	0.0E+00	5.0E+02	0.0E+00	30	0	0	0		
W17α x																t = 28
W43a			t = 7 d	t = 14 d	t = 21 d	t = 28 d	t = 7 d	t = 14 d	t = 21 d	t = 28 d						
	white	Rat1	3.4E+02	2.8E+02	1.5E+03	0.0E+00	5.0E+03	2.7E+02	4.1E+03	2.2E+02	0	0	0	0		
		Rat2	0.0E+00	0.0E+00	1.0E+01	0.0E+00	1.3E+03	6.8E+01	4.5E+03	2.4E+02	0	0	0	0		
		Rat3	5.8E+02	3.8E+02	5.1E+02	2.7E+01	2.9E+03	0.0E+00	7.8E+03	0.0E+00	40	0	0	0		
																t = 28
			t = 7 d	t = 14 d	t = 21 d	t = 28 d	t = 7 d	t = 14 d	t = 21 d	t = 28 d						
	opaque	Rat1	3.4E+02	2.8E+02	1.5E+03	0.0E+00	1.1E+03	5.6E+01	9.5E+02	5.0E+01	227	0	0	0		
		Rat2	0.0E+00	0.0E+00	2.0E+02	0.0E+00	8.4E+02	4.4E+01	7.8E+02	4.1E+01	0	0	0	0		
		Rat3	6.5E+02	4.3E+02	5.1E+02	2.7E+01	4.0E+03	0.0E+00	1.0E+03	0.0E+00	70	0	0	0		

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Table S2, continued

Mating	Inoculum		Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Fusants			
											Detected ^{a,b}			
YSU63α x												t = 28		
W43a			t = 7 d		t = 14 d		t = 21 d		t = 28 d		t = 7 d	t = 14 d	t = 21 d	d
	white	Rat1	5.0E+03	1.3E+03	2.9E+03	3.2E+02	1.3E+03	6.9E+01	3.8E+03	0.0E+00	0	0	0	0
		Rat2	8.1E+03	9.0E+02	1.8E+03	0.0E+00	4.0E+03	0.0E+00	3.4E+03	0.0E+00	0	0	0	0
		Rat3	1.2E+03	6.5E+01	1.4E+03	1.6E+02	2.7E+03	0.0E+00	3.9E+03	0.0E+00	0	0	0	0
												t = 28		
	white	Rat1	t = 7 d		t = 14 d		t = 21 d		t = 28 d		t = 7 d	t = 14 d	t = 21 d	d
		Rat1	9.1E+02	1.6E+02	6.5E+01	0.0E+00	2.0E+03	1.0E+02	2.3E+03	0.0E+00	0	0	0	0
		Rat2	4.3E+02	1.1E+02	3.2E+01	7.0E+00	7.6E+03	4.0E+02	2.6E+02	0.0E+00	0	0	0	0
		Rat3	1.4E+03	3.5E+02	3.9E+02	0.0E+00	2.7E+03	0.0E+00	2.8E+02	0.0E+00	0	0	0	0
												t = 28		
	opaque	Rat1	t = 7 d		t = 14 d		t = 21 d		t = 28 d		t = 7 d	t = 14 d	t = 21 d	d
		Rat1	3.9E+03	3.2E+03	3.6E+03	2.4E+03	1.3E+03	2.4E+03	2.4E+03	4.5E+04	0	0	0	0
		Rat2	3.2E+03	4.0E+03	4.0E+03	3.3E+03	3.6E+03	5.4E+03	3.2E+04	2.9E+05	0	0	0	0
		Rat3	4.7E+03	3.1E+03	4.3E+02	6.4E+02	3.0E+03	4.4E+03	1.1E+04	2.1E+05	0	0	0	0

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Table S2, continued

Mating	Inoculum	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Fusants					
										Detected ^{a,b}					
														t = 28	
			t = 7 d	t = 14 d	t = 21 d	t = 28 d	t = 7 d	t = 14 d	t = 21 d	t = 28 d					
	opaque	Rat1	6.1E+02	1.1E+03	7.3E+02	1.1E+03	1.1E+03	4.5E+02	1.2E+03	1.3E+02	0	0	0	0	
	^c	Rat2	7.5E+02	1.4E+03	8.8E+02	8.8E+02	8.2E+02	2.1E+02	1.4E+03	7.6E+01	0	0	0	0	
		Rat3	4.8E+02	1.1E+03	7.0E+02	8.5E+02	8.4E+02	2.1E+02	9.7E+02	1.1E+02	0	0	0	0	
HUN97α x															t = 28
Au90a			t = 7 d	t = 14 d	t = 21 d	t = 28 d	t = 7 d	t = 14 d	t = 21 d	t = 28 d					
	white	Rat1	0.0E+00	7.3E+03	0.0E+00	2.1E+04	1.8E+02	3.5E+03	3.6E+02	6.9E+03	0	0	0	0	
		Rat2	1.9E+03	1.1E+04	0.0E+00	4.8E+02	3.2E+02	6.1E+03	3.7E+01	7.0E+02	0	0	0	0	
		Rat3	1.1E+03	9.8E+03	4.4E+02	8.4E+03	0.0E+00	5.8E+02	0.0E+00	5.8E+02	0	0	0	0	
															t = 28
			t = 7 d	t = 14 d	t = 21 d	t = 28 d	t = 7 d	t = 14 d	t = 21 d	t = 28 d					
	opaque	Rat1	3.7E+02	4.5E+02	0.0E+00	2.2E+03	8.4E+01	1.6E+03	4.6E+01	8.8E+02	0	0	0	0	
		Rat2	5.9E+02	5.9E+02	0.0E+00	3.2E+03	9.8E+01	1.9E+03	1.9E+01	3.5E+02	0	0	0	0	
		Rat3	5.0E+02	7.5E+02	1.6E+02	3.1E+03	0.0E+00	2.2E+03	0.0E+00	4.1E+03	0	0	0	0	

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Table S2, continued

Mating	Inoculum	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Fusants				
										Detected ^{a,b}				
														t = 28
			t = 7 d	t = 14 d	t = 21 d	t = 28 d	t = 7 d	t = 14 d	t = 21 d	t = 28 d				
	opaque	Rat1	6.4E+02	1.9E+03	5.5E+02	1.3E+03	7.0E+02	8.5E+02	9.0E+02	3.9E+02	0	0	0	0
	^d	Rat2	2.2E+02	6.0E+02	7.3E+02	1.1E+03	3.9E+02	5.8E+02	1.1E+03	3.7E+02	0	0	0	0
		Rat3	3.7E+02	1.0E+03	4.6E+02	1.0E+03	4.2E+02	6.0E+02	8.7E+02	9.6E+01	0	0	0	0
FJ11α x														t = 28
Au90a			t = 7 d	t = 14 d	t = 21 d	t = 28 d	t = 7 d	t = 14 d	t = 21 d	t = 28 d				
	white	Rat1	1.3E+03	1.5E+02	1.7E+03	0.0E+00	2.6E+03	0.0E+00	2.6E+03	0.0E+00	0	0	0	0
		Rat2	3.1E+03	3.4E+02	3.3E+04	0.0E+00	2.3E+03	1.2E+02	2.4E+03	0.0E+00	0	0	0	0
		Rat3	2.8E+02	1.5E+01	1.9E+03	1.0E+02	3.1E+03	0.0E+00	2.8E+03	0.0E+00	0	0	0	0
														t = 28
			t = 7 d	t = 14 d	t = 21 d	t = 28 d	t = 7 d	t = 14 d	t = 21 d	t = 28 d				
	opaque	Rat1	2.3E+03	4.0E+02	4.9E+03	0.0E+00	3.3E+03	1.7E+02	9.9E+02	0.0E+00	0	0	0	0
		Rat2	2.5E+03	6.3E+02	2.0E+03	2.2E+02	2.1E+03	1.1E+02	5.1E+03	0.0E+00	0	0	0	0
		Rat3	3.0E+03	7.4E+02	2.7E+03	0.0E+00	1.1E+03	0.0E+00	7.6E+02	0.0E+00	0	0	0	0

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Table S2, continued

Mating	Inoculum		Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Parent 1	Parent 2	Fusants			
											Detected ^{a,b}			
FJ11α x														t = 28
W43a			t = 7 d		t = 14 d		t = 21 d		t = 28 d		t = 7 d	t = 14 d	t = 21 d	d
	white	Rat1	4.0E+02	4.4E+01	4.4E+02	0.0E+00	9.9E+03	0.0E+00	1.0E+04	0.0E+00	0	0	0	0
		Rat2	2.1E+02	2.3E+01	2.3E+02	0.0E+00	8.8E+03	4.6E+02	1.1E+03	0.0E+00	0	0	0	0
		Rat3	8.3E+01	4.4E+00	8.3E+01	4.4E+00	4.8E+03	0.0E+00	9.5E+03	0.0E+00	0	0	0	0
														t = 28
	opaque	Rat1	1.3E+03	3.3E+02	4.7E+03	0.0E+00	2.2E+03	2.5E+02	1.7E+03	0.0E+00	0	0	0	0
		Rat2	1.5E+03	3.6E+02	3.2E+03	3.5E+02	1.5E+03	8.0E+01	3.1E+03	0.0E+00	0	0	0	0
		Rat3	3.3E+03	8.3E+02	5.4E+03	0.0E+00	3.2E+03	0.0E+00	2.7E+03	0.0E+00	0	0	0	0

^a No fusants were detected when any of the inocula were plated out at t = 0 d

^b Identification of fusants was not significantly affected by marker loss. When groups of three rats were inoculated with either an OD8916α x W43a or a W17α x W43a fusant, and cells were recovered from the rats over a period of four weeks and checked for the presence of *MTLa*, *MTL*^Δ, *NAT*^r or *MPA*^r markers by PCR, only one out of 469 cells tested had lost one marker (*MPA*^r)

^c ratio of YSU63α:W43a in initial inoculum was 1:2

^d ratio of HUN97α:W43a in initial inoculum was 2:1