

Supplemental materials

Shan et al., <http://www.jcb.org/cgi/content/full/jcb.200702018/DC1>

Table S1

	[FtsY] (nM)	% translocation			
		wt	E475K	K399A	T307A
Data set 1	0.00	11.1	11.1	10.7	11.1
	6.67			12.2	
	10.0	23.0	15.8		11.2
	20.0	34.3	19.6	14.5	12.7
	50.0	40.0	25.0		13.0
	66.7			19.1	
	100	44.2	28.2		13.1
	200	48.0	30.0	24.9	13.2
Data set 2	0.00	9.64	9.64	9.65	9.64
	6.67	17.8	13.1	11.0	9.99
	20.0	27.8	18.1	13.1	10.1
	50.0	36.0	23.0	17.2	11.0
	100	39.7	25.9		11.8
	200	41.2	27.6	22.3	11.6
Data set 3	0.00	13.6	13.6	13.6	13.6
	6.67	23.7	20.3		
	10.0			16.4	
	20.0	30.8	25.2	18.3	14.3
	50.0	38.1		22.1	14.6
	66.7		30.2		
	100	50.6	33.3	25.1	15.1
	200	57.6	37.6	25.3	16.2

Data for Fig. 2 (data set 1) and Fig. S3A (data sets 2 and 3).

Table S2

	[FtsY] (nM)	% translocation		
		wt	R386A	N302W
Data set 1	0.0000	11.7	11.7	11.7
	10.000	42.0	18.0	14.0
	20.000	67.8	25.0	16.8
	60.000	77.6	37.0	18.0
	200.00	82.0	44.8	19.5
Data set 2	0.0000	12.2	12.2	12.2
	20.000	71.2	23.0	18.8
	60.000	75.2	37.8	17.8
	200.00	86.1	45.5	19.2
Data set 3	0.0000	20.1	20.1	20.1
	20.000	60.0	35.5	22.0
	60.000	77.6	43.9	23.4
	200.00	80.1	45.6	21.5

Data for Fig. 3B (data set 1) and Fig. S3B (data sets 2 and 3).

Table S3

		[FtsY] (nM)	% translocation				
		wt	R333A	R386A	N302W	A335W	A336W
Data set 1	0.00	11.8	11.8	11.8	11.8	11.8	11.8
	20.0	39.0	24.5	17.9	19.3		
	60.0	51.3	30.0	24.8	19.1		
	200	57.9	33.7	26.7	22.0		
	13.3					11.4	11.0
	33.3					12.7	12.0
	66.7					13.2	12.4
	200					13.7	13.5
Data set 2	0.00	13.0	13.0	13.0	13.0	13.0	
	20.0	41.0	25.8	18.8	16.3	13.2	
	60.0	52.6	31.4	25.5	19.7	14.7	
	200	58.5	35.1	28.1	23.7	15.6	
Data set 3	0.00	10.6	10.6	10.6	10.6		10.6
	20.0	35.1	18.9	17.9	14.0		
	60.0	46.2	25.5	21.1	16.8		
	200	52.1	28.7	23.7	19.4		
	13.3						10.5
	33.3						11.7
	66.7						12.2
	200						12.6
Data set 4	0.00	20.1	20.1	20.1	20.1	20.1	
	20.0	31.6	27.6	24.8	20.4	21.7	
	60.0	46.0	33.5	27.4	23.2	22.6	
	200	50.0	35.5	29.9	24.7	22.5	
Data set 5	0.00	8.00	8.00			8.00	8.00
	13.3	23.7	15.6			9.40	9.01
	33.3	28.4	17.8			9.69	10.0
	66.7	37.0	20.2			10.2	10.4
	200	39.2	21.6			10.7	10.5

Data for Fig. 3C (data set 1) and Fig. S3C (data sets 2–5).

Table S4

	[FtsY] (μM)	GTPase rate (min^{-1})			
		wt	R141A	A144W	A143W
Data set 1	0.100	9.26	0.270	0.177	0.688
	0.300	23.8	0.605	0.265	1.45
	1.00	41.5	1.25	0.483	2.80
	3.00	63.9	2.10	0.656	5.07
	10.0	70.0	2.87	0.860	6.60
Data set 2	0.100	8.40	0.270	0.126	0.567
	0.300	16.0	0.605	0.189	1.27
	1.00	25.0	1.25	0.345	2.62
	3.00	47.2	2.10	0.469	4.41
	10.0	57.3	2.87	0.614	6.03
	30.0		3.06	0.721	6.43
Data set 3	0.100	10.6	0.206	0.112	0.860
	0.300	23.2	0.461	0.167	1.76
	1.00	44.0	0.953	0.304	3.14
	3.00	50.7	1.25	0.413	5.35
	10.0	57.0	1.81	0.508	6.26
	30.0		2.19	0.542	6.66

Data for Fig. 4A (data set 1) and Fig. S3D (data sets 2 and 3).

Table S5

	[FtsY] (μM)	GTPase rate (min^{-1})		
		wt	Q109A	R194A
Data set 1	0.00	2.00	2.00	2.00
	0.300	24.4	32.0	11.0
	1.00	47.0	50.0	17.0
	3.00	64.0	71.5	23.0
	10.0	77.5	83.0	25.0
Data set 2	0.00	1.40	1.40	1.40
	0.300	17.1	18.4	9.70
	1.00	32.9	35.0	12.9
	3.00	44.8	48.0	16.1
	10.0	50.3	58.1	17.5
Data set 3	0.200	21.0	1.82	12.4
	0.500	30.0	37.3	18.2
	1.00	47.0	45.5	24.7
	3.00	73.0	62.5	30.2
	10.0	79.5	75.5	36.0
Data set 4	0.100	4.40	2.80	0.840
	0.300	8.80	5.20	1.08
	1.00	22.0	11.6	1.88
	3.00	24.0	19.8	3.20
	10.0	28.0	24.0	6.20

Data for Fig. 4B (data set 1) and Fig. S3E (data sets 2–4).

Table S6

	[SRP] (nM)	% translocation			
		wt	R141A	A143W	A144W
Data set 1	0.00	21.7	21.7	21.7	21.7
	7.70	41.6	26.0	38.7	25.1
	31.0	60.5	29.8	43.1	24.6
	154	78.9	30.9	51.1	26.9
Data set 2	0.00	21.3	21.3	21.3	21.3
	15.4	46.9	26.5	33.1	25.0
	45.0	65.2	31.0	41.0	21.7
	154	77.6	30.8	46.4	26.9
Data set 3	0.00	16.8	16.8	16.8	16.8
	20.0	32.9	20.8	28.5	17.1
	60.0	54.4	23.6	33.4	18.2
	200	61.8	24.5	39.6	18.9

Data for Fig. 5A (data set 1) and Fig. S3F (data sets 2 and 3).

Table S7

	[SRP] (nM)	% translocation		
		wt	Q109A	R194A
Data set 1	0.00	21.7	21.7	22.6
	7.70	41.6	43.1	
	31.0	60.5	54.2	
	154	78.9	72.5	
	7.14			47.2
	28.6			52.4
Data set 2	0.00	13.5	13.5	13.5
	20.0	40.9	33.7	22.4
	50.0	57.5	48.9	46.8
	100	71.5	60.2	51.9
	200	76.5	70.4	68.1
	500	82.9	73.9	75.5
Data set 3	0.00	21.3	21.3	21.3
	15.4	46.9	50.8	55.0
	45.4	65.2	61.4	66.1
	154	77.6	76.4	71.7
Data set 4	0.00	13.7	13.7	13.7
	10.3	29.6	32.2	22.4
	45.0	46.8	48.9	41.3
	143	61.0	62.0	59.1

Data for Fig. 5B (data set 1) and Fig. S3G (data sets 2–4).