

The apparent half-times (t_h) of FRET-labeled AIM2^{PYD} polymerization

[FRET-AIM2 ^{PYD}] μM	t_h (min.)
0.5	829.1 \pm 181.9
1	197.2 \pm 44.7
2.5	125.3 \pm 41.5
5	68.7 \pm 11.3

The apparent half-times (t_h) of FRET-labeled AIM2^{PYD} polymerization (2.5 μM) in the presence of unlabeled AIM2^{PYD}.

[unlabeled AIM2 ^{PYD}] μM	t_h (min.)
0	125.3 \pm 41.5
0.25	107.0 \pm 15.6
0.5	78.2 \pm 15.8
1	48.4 \pm 9.9
2.5	31.2 \pm 3.0
5	21.1 \pm 7.1

The apparent half-times (t_h) of FRET-labeled AIM2^{PYD} polymerization (2.5 μM) in the presence of unlabeled ASC^{PYD}.

[unlabeled ASC ^{PYD}] μM	t_h (min.)
0	125.3 \pm 41.5
0.5	68.1 \pm 3.2
1	50.1 \pm 4.1
2.5	27.1 \pm 7.1
5	18.5 \pm 6.2

The apparent half-times (t_h) of FRET-labeled AIM2^{PYD} polymerization (2.5 μM) in the presence of dsDNA-bound AIM2^{FL} (36 nM)

dsDNA size (bps)	t_h (min.)
No dsDNA	125.3 \pm 41.5
39	95.7 \pm 39.9
60	100.7 \pm 37.9
72	74.9 \pm 10.5
100	46.1 \pm 10.0
150	26.8 \pm 9.5
200	22.0 \pm 9.0
300	24.2 \pm 5.6
600	22.0 \pm 3.7

The apparent half-times (t_h) of FRET-labeled ASC^{PYD} polymerization

[FRET-ASC ^{PYD}] μM	t_h (min.)
1	66.6 \pm 18.2
2.5	25.6 \pm 6.4
5	16.4 \pm 4.4

The apparent half-times (t_h) of FRET-labeled ASC^{PYD} polymerization (2.5 μM) in the presence of unlabeled ASC^{PYD}.

[unlabeled ASC ^{PYD}] μM	t_h (min.)
0	25.6 \pm 6.4
0.5	23.1 \pm 6.4
1	19.2 \pm 2.5
2.5	12.2 \pm 1.8
5	7.9 \pm 1.7

The apparent half-times (t_h) of FRET-labeled ASC^{PYD} polymerization (2.5 μM) in the presence of unlabeled AIM2^{PYD}.

[unlabeled AIM2 ^{PYD}] μM	t_h (min.)
0	25.6 \pm 6.4
0.125	28.3 \pm 1.8
0.25	26.4 \pm 5.6
0.5	23.2 \pm 6.8
1	17.4 \pm 4.6
2.5	13.7 \pm 3.3

The apparent half-times (t_h) of FRET-labeled ASC^{PYD} polymerization (2.5 μM) in the presence of dsDNA-bound AIM2^{FL} (36 nM)

dsDNA size (bps)	t_h (min.)
No dsDNA	25.6 \pm 6.4
39	23.3 \pm 3.7
60	21.2 \pm 2.8
72	19.7 \pm 3.5
100	17.9 \pm 1.1
150	11.9 \pm 2.7
200	10.0 \pm 1.8
300	10.6 \pm 2.8
600	9.6 \pm 1.8

The observed assembly rate (k_{assm}) of AIM2^{FL} (72 nM) on various size of dsDNA

dsDNA size (bps)	$k_{assm}(min^{-1})$	t_h (min.)
24	0.001*	690*
39	0.016 ± 0.008	43.13
72	0.110 ± 0.007	6.27 ± 0.40
150	0.230 ± 0.049	3.00 ± 0.65
300	0.440 ± 0.212	1.57 ± 0.76
600	0.660 ± 0.139	1.05 ± 0.22

*Upper estimate

The observed assembly rates (k_{assm}) of AIM2^{FL} (72 nM) on various size of dsDNA in the presence of 5 μ M AIM2^{PYD}

dsDNA size (bps)	$k_{assm}(min^{-1})$	t_h (min.)
24	0.033 ± 0.014	20.91 ± 8.87
39	0.157 ± 0.042	4.39 ± 1.18
72	0.520 ± 0.130	1.33 ± 0.33
150	1.470 ± 0.300	0.47 ± 0.10
300	1.760 ± 0.330	0.39 ± 0.07
600	1.920 ± 0.210	0.36 ± 0.04

The observed assembly rates (k_{assm}) of AIM2^{FL} (72 nM) on various size of dsDNA in the presence of 5 μ M ASC^{PYD}

dsDNA size (bps)	$k_{assm}(min^{-1})$	t_h (min.)
24	0.006*	115*
39	0.089 ± 0.012	7.75 ± 1.05
72	0.250 ± 0.081	2.76 ± 0.89
150	0.410 ± 0.075	1.68 ± 0.31
300	0.730 ± 0.087	0.95 ± 0.11
600	0.825 ± 0.131	0.84 ± 0.13

*Upper estimate

Rate constants used in modeling

Rate constants	(min^{-1})
k_1	$0.00096 \mu\text{M}^{-1}\text{min}^{-1}$
k_2	0.001845min^{-1}
k_3	$0.00738 \mu\text{M}^{-1}\text{min}^{-1}$
k_4	$180 \mu\text{M}^{-1}\text{min}^{-1}$
k_5	0.00006min^{-1}
k_6	$9.24 \mu\text{M}^{-1}\text{min}^{-1}$
k_7	$0.00732 \mu\text{M}^{-1}\text{min}^{-1}$
k_8	0.0066min^{-1}
k_9	$0.0132 \mu\text{M}^{-1}\text{min}^{-1}$
k_{10}	$0.0066 \mu\text{M}^{-1}\text{min}^{-1}$
k_{11}	$0.01812 \mu\text{M}^{-1}\text{min}^{-1}$

Values for *AIM2dsDNA*

dsDNA size (bps)	<i>AIM2dsDNA</i>
24	N/A
39	0.0242
72	0.1667
150	0.3484
300	0.6667
600	1

Values for *ringBind1*

dsDNA size (bps)	<i>ringBind</i>
24	N/A
39	5.9
72	12.9
150	70.4
300	80.1
600	90

Values for *ringBind2*

dsDNA size (bps)	<i>ringBind</i>
24	N/A
39	4.0
72	12.9
150	47.9
300	58.9
600	67

Values for *ASCdnaAIM2*

dsDNA size (bps)	<i>ASCdnaAIM2</i>
24	N/A
39	0.00398
72	0.00764
150	0.00982
300	0.01583
600	0.00898

Values for *AIM2^pdnaAIM2*

dsDNA size (bps)	<i>AIM2^pdnaAIM2</i>
24	N/A
39	0.0068
72	0.0199
150	0.0601
300	0.0641
600	0.0611