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Supplementary material:

Supplementary file: Analysis of the experimental data of the paper: Verma et al, (2013) iBiology

Table S1. Single cell distribution of BCR.ABL mRNA and BCR.ABLp~P raw data. The cells for the two types of analysis were from the same sample but individually different from each other, *i.e*. a total of 135 cells were analyzed.

Cell serial number	Number of cells	BCR.ABL mRNA copies per cell	Number of Cells	BCR.ABLp~P copies per cell
1	1	262	1	32
2	1	220	1	30
3	1	204	1	25
4	1	188	1	23
5	1	189	2	22
6	1	130	3	21
7	1	119	1	16
8	1	118	1	15
9	1	118	1	14
10	1	109	1	12
11	1	92	2	11
12	1	91	1	9
13	1	90	1	8
14	1	83	1	7
15	1	75	6	6
16	1	71	20	5
17	1	70	15	4
18	1	67	3	3
19	1	66	4	2
20	1	66	**Total 66**	
21	1	66		
22	1	60		
23	1	56		
24	1	54		
25	1	48		
26	1	43		
27	1	37		
28	1	36		
29	1	36		
30	1	34		
31	1	33		
32	1	33		
33	1	33		
34	1	31		
35	1	26		
36	1	26		
37	1	21		
38	1	20		
39	1	20		
40	1	18		
41	1	17		
42	1	15		
43	1	13		
44	1	13		
45	1	13		
46	1	12		
47	1	12		
48	1	11		
49	1	10		
50	1	10		
51	1	10		
52	1	10		
53	1	9		
54	1	9		
55	1	9		

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56	1	9
57	1	9
58	1	9
59	1	9
60	1	9
61	1	9
62	1	8
63	1	8
64	1	8
65	1	8
66	1	7
67	1	7
68	1	7
69	1	6
	Total 69	

Table S2. Correlation of BCR.ABL mRNA to BCR.ABLp~P measurements at the single cell level based on the (challengeable) assumption that the expression of BCR-ABL at the phosphorylated protein level (here BCR.ABLp~P) increases monotonically with the expression at the mRNA expression level and corresponding data processing. Hofmeyr et al., (1993) also made similar correlations for mRNA and protein concentration. Both data sets were therefore both ordered as a list in order of decreasing number of mRNA or proteins per cell. Serial numbers were added to both rows. There were three cells short for BCR.ABLp~P (66 cells) as compared to mRNA (69 cells) analysis. Therefore three mRNA values were deleted by random number generation to pick the serial number in the ranked sequence of values of mRNA. The random numbers 33, 66, 67 were generated using the statistical random number generator in MATLAB for interval (1, 70) using syntax '= rand()*(70-1)+1'. Deleted values are highlighted by yellow colour in Table S1 above.

Cell serial number	Number of cells	BCR.ABL mRNA copies	BCR.ABLp~P Copies	Number of Cells	BCR.ABLp-P copies
1	1	262	32	1	32
2	1	220	30	1	30
3	1	204	25	1	25
4	1	189	23	1	23
5	1	188	22	2	22
6	1	130	22	3	21
7	1	119	21	1	16
8	1	118	21	1	15
9	1	118	21	1	14
10	1	109	16	1	12
11	1	92	15	2	11
12	1	91	14	1	9
13	1	90	12	1	8
14	1	83	11	1	7
15	1	75	11	6	6
16	1	71	9	20	5
17	1	70	8	15	4
18	1	67	7	3	3
19	1	66	6	4	2
20	1	66	6	**Total 66**	
21	1	66	6		
22	1	60	6		
23	1	56	6		
24	1	54	6		
25	1	48	5		
26	1	43	5		
27	1	37	5		
28	1	36	5		
29	1	36	5		
30	1	34	5		
31	1	33	5		
32	1	33	5		

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34	1	31	5
35	1	26	5
36	1	26	5
37	1	21	5
38	1	20	5
39	1	20	5
40	1	18	5
41	1	17	5
42	1	15	5
43	1	13	5
44	1	13	5
45	1	13	5
46	1	12	4
47	1	12	4
48	1	11	4
49	1	10	4
50	1	10	4
51	1	10	4
52	1	10	4
53	1	9	4
54	1	9	4
55	1	9	4
56	1	9	4
57	1	9	4
58	1	9	4
59	1	9	4
60	1	9	4
61	1	9	3
62	1	8	3
63	1	8	3
64	1	8	2
65	1	8	2
66			
67			
68	1	7	2
69	1	6	2
	Total 66		

Table S3. Correlation of BCR.ABL mRNA to BCR.ABLp~P at single cell level with logic of maximum mRNA expression correlates to maximum protein (here BCR.ABLp~P). Hofmeyr et al., (1993) similarly correlated mRNA and protein concentrations. There were 3 cells short for BCR.ABLp~P (66 cells) as compared to mRNA (69 cells) analysis therefore three mRNA values were deleted by random number generation to pick the values of mRNA. We have deleted values (37, 57, 67) as random numbers generated by Stat Trek on the website (11/27/2012) with the minimum value 1, and maximum value 70 allowing duplicate entries and a seed of 13. This Table gave a plot that is indistinguishable from that given by Table S2.

Cell serial number	Number of cells	BCR.ABL mRNA copies	BCR.ABLp~P Copies	Number of Cells	BCR.ABLp-P copies
1	1	262	32	1	32
2	1	220	30	1	30
3	1	204	25	1	25
4	1	189	23	1	23
5	1	188	22	2	22
6	1	130	22	3	21
7	1	119	21	1	16
8	1	118	21	1	15
9	1	118	21	1	14
10	1	109	16	1	12
11	1	92	15	2	11
12	1	91	14	1	9
13	1	90	12	1	8

14	1	83	11	1	7
15	1	75	11	6	6
16	1	71	9	20	5
17	1	70	8	15	4
18	1	67	7	3	3
19	1	66	6	4	2
20	1	66	6	**Total 66**	
21	1	66	6		
22	1	60	6		
23	1	56	6		
24	1	54	6		
25	1	48	5		
26	1	43	5		
27	1	37	5		
28	1	36	5		
29	1	36	5		
30	1	34	5		
31	1	33	5		
32	1	33	5		
33	1	33	5		
34	1	31	5		
35	1	26	5		
36	1	26	5		
37					
38	1	20	5		
39	1	20	5		
40	1	18	5		
41	1	17	5		
42	1	15	5		
43	1	13	5		
44	1	13	5		
45	1	13	5		
46	1	12	4		
47	1	12	4		
48	1	11	4		
49	1	10	4		
50	1	10	4		
51	1	10	4		
52	1	10	4		
53	1	9	4		
54	1	9	4		
55	1	9	4		
56	1	9	4		
57					
58	1	9	4		
59	1	9	4		
60	1	9	4		
61	1	9	4		
62	1	8	3		
63	1	8	3		
64	1	8	3		
65	1	8	2		
66	1	7			
67					
68	1	7	2		
69	1	6	2		
	Total 66				

References:

Hofmeyr, J. H., A. Cornish-Bowden, and J. M. Rohwer. (1993). Taking enzyme kinetics out of control; putting control into regulation. *Eur J Biochem* 212 (3):833-7.