(0.1, 0.1, 0.1, 0.1, 0.1) wt, no DNAdam (0.8 0.8 0.8 0.8 0.0 0.0 0.0 0.0 0.0 0.0	-0.790.790.040.0 0.0 0.0 0.04 - 0.8 0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.1 - 1.0 1	.8 0.8 0.04 0.0 0.0 0.0 0.04 - 0.810.810.8 .0 1.0 0.0 0.0 0.0 0.0 0.0 - 1.0 1.0 1.1 .0 1.0 0.0 0.0 0.0 0.0 0.0 - 1.0 1.0 1.1 .0 1.0 0.0 0.0 0.0 0.0 0.0 - 1.0 1.0 1.1 .0 1.0 0.0 0.0 0.0 0.0 0.0 - 1.0 1.0 1.1	0.1, 0.1, 1, 0.1) (0.1, 0.1, 1, 0.0) (0.0, 0.0, 0.0, 0.0) (0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	0.0 0.0 0.0 0.03	(0.1, 0.1, 0.1, 10.0, 0.1) .04 -0.790.790.790.03 0.0 0.0 0.0 0.0 0.0 .0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 .0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 .0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 .0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 .0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0	(0.1, 0.1, 0.1, 10.0, 1) -0.790.790.790.04 0.0 0.0 0.0 0.0 0.04 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0	(0.1, 0.1, 0.1, 10.0, 10.0) -0.810.810.810.03 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0
wt. no DNAdam - 1820.820.820.820.820.000 0.000.000	- 0.8 0.8 0.8 0.04 0.0 0.0 0.0 0.04 - 0.810 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	810.810.04 0.0 0.0 0.0 0.04 - 0.8 0.8 0.8 0.8 0.8 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	· · · · · · · · · · · · · · · · · · ·	0.0 0.0	.02	(0.1, 0.1, 1, 10.0, 1) -0.810.810.810.04 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0	(0.1, 0.1, 1, 10.0, 10.0) -0.8 0.8 0.8 0.03 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0
wt, no DNAdam (0.1, 0.1, 10.0, 0.1, 0.1) wt, no DNAdam (0.810.810.810.04 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-0.810.810.810.03 0.0 0.0 0.0 0.0 0.0 -0.810.810.810.810.810.810.810.810.810.81	810.810.04 0.0 0.0 0.0 0.04 - 0.8 0.8 0.8 0.8 0.0	0.1, 10.0, 1, 0.1) (0.1, 0.1, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0,	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(0.1, 0.1, 10.0, 10.0, 0.1) 0.2	(0.1, 0.1, 10.0, 10.0, 1)	(0.1, 0.1, 10.0, 10.0, 10.0) -0.810.810.810.04 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0
wt, no DNAdam 0.8 0.8 0.8 0.3 0.0 0.0 0.0 0.14 krasΔ, no DNAdam, 0/0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.780.780.780.140.0 0.0 0.0 0.14 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0	.8 0.8 0.13 0.0 0.0 0.0 0.13	10.11 0.0 0.0 0.0 0.12 10.01 0.0 0.0 0.0 0.06 10.0 0.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 0.0 0.0	20.0 0.0 0.0 0.13	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.8 0.8 0.8 0.13 0.0 0.0 0.0 0.15 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.07 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.07 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 (0.1, 1, 1, 10.0, 1)	-0.810.810.810.12 0.0 0.0 0.0 0.13 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
wt, no DNAdam - 0.810.810.12 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	- 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 - 1.0 1 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 - 1.0 1 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1.	0.0 0.0 0.0 0.0 0.18	0.030.030.030.01	.16	-0.810.810.810.12 0.0 0.0 0.0 0.17 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.17 -1.0 1.0 1.0 0.0 0.020.020.020.01 -1.0 1.0 1.0 0.0 0.030.030.030.01 -1.0 1.0 1.0 0.030.030.030.030.01 -1.0 1.0 1.0 0.020.040.040.040.02 (0.1, 1, 10.0, 10.0, 1)	-0.810.810.810.12 0.0 0.0 0.0 0.16 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.19 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
krasΔ, no DNAdam, 0/0 -10 10 10 00 00 00 00 00 00 00 00 00 00 0	(0.1, 10.0, 0.1, 0.1, 1)	1.0 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.0, 0.1, 1, 0.1) (0.1, 10.0) 0.0, 0.1, 1, 0.1) (0.1, 10.0) 0.0, 0.1, 0.0, 0.0, 0.15 -0.8 0.8 0.8 0.14	0.030.030.030.02 0.020.020.030.01 0.040.040.040.02 1.0 1.0 1.0 0.0 0.030.030.03 1.0 1.0 1.0 0.0 0.030.030.03 1.0 1.0 1.0 0.020.040.040.05 1.0 1.0 1.0 0.0 0.0 0.0 0.030.03 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	18	(0.1, 10.0, 0.1, 10.0, 1) (0.1, 10.0, 0.1, 10.0, 1) (0.1, 10.0, 0.1, 10.0, 1)	1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.18 1.0 1.0 1.0 0.0 0.040.040.040.01 1.0 1.0 1.0 0.0 0.050.050.050.01 1.0 1.0 1.0 0.0 0.040.040.050.01 1.0 1.0 1.0 0.0 0.040.060.060.01 (0.1, 10.0, 0.1, 10.0, 10.0) -0.790.790.790.16 0.0 0.0 0.0 0.18
krasΔ, no DNAdam, 0/0 10 10 10 00 00 00 00 00 krasΔ, DNAdam, 0/0 10 10 10 00 00 00 00 00 00 krasΔ, DNAdam, chek1i/0 10 10 10 10 00 00 00 00 00 krasΔ, DNAdam, 0/mk2i 10 10 10 10 00 00 00 00 00 krasΔ, DNAdam, chek1i/mk2i 10 10 10 10 10 00 00 00 00 00 00 00 00		1, 10.0, 1, 0.1, 10.0) (0.1,		0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	09 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(0.1, 10.0, 1, 10.0, 1) -0.810.810.810.85 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	- 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
krasΔ, DNAdam, 0/0 -10 10 10 00 00 00 00 00 00 krasΔ, DNAdam, chek1i/0 -10 10 10 10 00 00 00 00 00 00 00 krasΔ, DNAdam, 0/mk2i -10 10 10 00 00 00 00 00 00 00 00 00 00 0	-0.8 0.8 0.8 0.16 0.0 0.0 0.0 0.19 -0.8 0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.13 -1.0 1	.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0, 10.0, 1, 0.1) (0.1, 10.0, 1.0, 1.0, 1.0, 1.0, 1.0, 1.0,	10.0, 1, 1) (0.1, 10.0, 10.0, 1, 10.0, 10.0, 1, 10.0,	25 -0.810.810.810.15 0.0 0.0 0.0 0.24 24 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.024	1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.25	(0.1, 10.0, 10.0, 10.0, 10.0, 10.0) -0.8 0.8 0.8 0.16 0.0 0.0 0.0 0.0 0.23
KrásΔ, DNAdam, 0/0 10 10 10 10 10 10 10 10 10 10 10 10 10	(1, 0.1, 0.1, 0.1, 1) (1	0 1.0 0.020.020.020.020.02 0 1.0 0.0 0.020.020.020.02 0 1.0 0.080.020.020.020.08 - 1.0 1.0 1.0	1, 0.1, 1, 0.1) (1, 0.1, 0.1)	0.060.060.070.03 	01	(1, 0.1, 0.1, 10.0, 1) -0.8 0.8 0.8 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(1, 0.1, 0.1, 10.0, 10.0) -0.790.790.790.030.000.000.000.0000.000.000.000.000.
krasΔ, DNAdam, Chek1i/0 - 10 10 10 10 10 10 10 10 10 10 10 10 10	-0.810.810.81 <mark>0.03 0.0 0.0 0.0 0.04</mark> -0.790.	1, 0.1, 1, 0.1, 10.0) 1, 0.790.03 0.0 0.0 0.0 0.0 1, 0.790.03 0.0 0.0 0.0 0.0 1, 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	0.1, 1, 1, 0.1) 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	1, 1, 1) (1, 0.1, 1, 1, 10.0) -0.0 0.0 0.0 0.05 -0.8 0.8 0.8 0.8 0.0 0.0 0.0 0.0 0.0	(1, 0.1, 1, 10.0, 0.1) (1, 0.1, 1, 10.0, 0.1) (2, 0.1, 1, 10.0, 0.1) (1, 0.1, 1, 10.0, 0.1)	(1, 0.1, 1, 10.0, 1) -0.8 0.8 0.8 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 (1, 0.1, 1, 10.0, 1)	(1, 0.1, 1, 10.0, 10.0) -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
krasΔ, DNAdam, Chek1i/0 10 10 10 10 10 10 10 10 10 10 10 10 10	(1, 0.1, 10.0, 0.1, 1) (1	, 0.1, 10.0, 0.1, 10.0) (1, 0.	1, 10.0, 1, 0.1) (1, 0.1, 1	0.0 0.0 0.0 0.04 -0.810.810.810.04 0.0 0	(1, 0.1, 10.0, 10.0, 0.1)	(1, 0.1, 10.0, 10.0, 0.0, 0.0, 0.0) -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 (1, 0.1, 10.0, 10.0, 1) -0.8 0.8 0.8 0.8 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0	(1, 0.1, 10.0, 10.0, 10.0, 10.0) -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 (1, 0.1, 10.0, 10.0, 10.0) -0.790.790.790.03 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0
krasΔ, DNAdam, chek1i/0 -10 10 10 10 10 10 10 10 10 10 10 10 10 1		1, 1, 0.1, 0.1, 10.0) (1, 1)	1, 0.1, 1, 0.1) (1, 1, 0.1) 90.130.0 0.0 0.0 0.0 0.14 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	.1, 1, 1)	(1, 1, 0.1, 10.0, 0.1) (1, 1, 0.1, 10.0, 0.1) (1, 1, 0.1, 10.0, 0.1) (1, 1, 0.1, 10.0, 0.1)	(1, 1, 0.1, 10.0, 1) -0.790.790.790.13 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	(1, 1, 0.1, 10.0, 10.0) (1, 1, 0.1, 10.0, 10.0) (1, 1, 0.1, 0.0, 0.0, 0.0, 0.14 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0
krasΔ, DNAdam, 0/mk2i 10 10 10 10 10 10 10 10 10 10 10 10 10	(1, 1, 1, 0.1, 1)	(1, 1, 1, 0.1, 10.0) (1, 8 0.8 0.13 0.0 0.0 0.0 0.14	1, 1, 1, 0.1) (1, 1, 1, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 0, 1, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	0.0 0.0 0.0 0.17 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0	.17	(1, 1, 1, 10.0, 1) -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 (1, 1, 1, 10.0, 1) -0.820.820.820.12 0.0 0.0 0.0 0.17 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.17 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0	(1, 1, 1, 10.0, 10.0, 0.0, 0.0, 0.0, 0.0,
krasΔ, DNAdam, 0/mk2i		1, 1, 10.0, 0.1, 10.0) (1, 1 820.820.12 0.0 0.0 0.0 0.14 10 1.0 0.0 0.0 0.0 0.0 0.0 10 1.0 0.0 0.0 0.0 0.0 0.0	., 10.0, 1, 0.1) (1, 1, 10 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.0, 1, 1) (1, 1, 10.0, 1, 10.0) 0.0, 0.0 0.0 0.19 0.0 0.0 0.0 0.17 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(1, 1, 10.0, 10.0, 0.1) (1, 1, 10.0, 10.0, 0.1) (1, 1, 10.0, 10.0, 0.1) (1, 1, 10.0, 10.0, 0.1) (1, 1, 10.0, 10.0, 0.0, 0.0, 0.1) (1, 1, 10.0, 10.0, 0.0, 0.0, 0.1)	(1, 1, 10.0, 10.0, 1) -0.8 0.8 0.8 0.13 0.0 0.0 0.0 0.19 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.18 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.18 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.18 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(1, 1, 10.0, 10.0, 10.0) -0.810.810.810.13 0.0 0.0 0.0 0.18 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.2 -1.0 1.0 1.0 0.0 0.0 0.0 0.30.030.04 -1.0 1.0 1.0 0.0 0.0 0.0 0.40.040.05 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0
krasΔ, DNAdam, chek1i/mk2i - 10 10 10 10 10 10 10 10 10 10 10 10 10		, 10.0, 0.1, 0.1, 10.0) (1, 10	0.0, 0.1, 1, 0.1) (1, 10.0, 0.0, 0.0, 0.1, 1.0, 0.0, 0.1, 1.0, 0.0, 0	0.1, 1, 1) (1, 10.0, 0.1, 1, 10.0) 0.0 0.0 0.0 0.15 - 0.8 0.8 0.8 0.15 0.0 0.0 0.0	(1, 10.0, 0.1, 10.0, 0.1)	(1, 10.0, 0.1, 10.0, 1) -0.810.810.810.15 0.0 0.0 0.0 0.1 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.1 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(1, 10.0, 0.1, 10.0, 10.0) (1, 10.0, 0.1, 10.0, 10.0) -0.8 0.8 0.8 0.15 0.0 0.0 0.0 0.1 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.1 -1.0 1.0 1.0 0.0 0.10 0.10 0.10 0.1 -1.0 1.0 1.0 0.0 0.10 0.10 0.10 0.1 -1.0 1.0 1.0 0.0 0.10 0.10 0.10 0.1
wt. no DNAdam - 1830.830.830.14 00 00 00 00 00 00 00 00 00 00 00 00 00	- 0.8 0.8 0.8 0.15 0.0 0.0 0.0 0.17 - 0.8 0 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.11 - 1.0 1 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 - 1.0 1 - 1.0 1.0 1.0 0.080.010.010.010.09 - 1.0 1	.8 0.8 0.17 0.0 0.0 0.0 0.19 - 0.8 0.8 0.3 0.1 0.0 0.0 0.0 0.1 - 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0 0.0 0.0 0.0 0.23 - 1.0 1.0 1.0 0.0 0 0.0 0.0 0.0 0.010.08 - 1.0 1.0 1.0 0.0 0 0.09 0.0 0.0 0.010.11 - 1.0 1.0 1.0 0.08	5 0.0 0.0 0.0 0.02 -0.790.790.790.17 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.21 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.030.030.030.07 -1.0 1.0 1.0 0.0 0.030.030.040 0.020.020.030.09 -1.0 1.0 1.0 0.0 0.020.020.03 0.010.010.020.06 -1.0 1.0 1.0 0.0 0.020.020.03	(1, 10.0, 1, 10.0, 0.1) 24 -0.810.810.810.15 0.0 0.0 0.0 0.24 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.24 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.24 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.120.0 0.0 0.0 0.0 0.0	(1, 10.0, 1, 10.0, 1) -0.820.820.820.14 0.0 0.0 0.0 0.23 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.23 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.05 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(1, 10.0, 1, 10.0, 10.0) -0.810.810.810.15 0.0 0.0 0.0 0.23 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.23 -1.0 1.0 1.0 0.0 0.050.050.060.05 -1.0 1.0 1.0 0.0 0.050.050.050.05 -1.0 1.0 1.0 0.0 0.050.050.050.05
(1, 10.0, 10.0, 0.1, 0.1) wt, no DNAdam	-0.790.790.170.0 0.0 0.0 0.2 -0.810 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.13 -1.0 1 -1.0 1.0 1.0 0.0 0.010.010.010.03 -1.0 1 -1.0 1.0 1.0 0.0 0.010.010.010.09 -1.0 1 -1.0 1.0 1.0 0.0 0.010.010.010.03 -1.0 1 -1.0 1.0 1.0 0.13 0.0 0.0 0.010.13 -1.0 1	810.810.15 0.0 0.0 0.18 - 9.810.810.8 10 1.0 0.0 0.0 0.0 0.0 0.13 - 1.0 1.0 1.0 1.0 1.0 0.0 0.010.010.010.02 - 1.0 1.0 1.0 1.0 1.0 0.090.010.010.010.03 - 1.0 1.0 1.0 1.0 1.0 0.020.020.020.020.12 - 1.0 1.0 1.0	.0, 10.0, 1, 0.1) (1, 10.0, 1 10.16 0.0 0.0 0.0 0.24 0 0.0 0.0 0.0 0.0 0.22 0 0.0 0.0 0.0 0.0 0.1 0 0.0 0.0 0.0 0.0 0.0 0.1	6 0.0 0.0 0.0 0.23 - 0.8 0.8 0.8 0.16 0.0 0.0 0.0 0.0 0.0 0.0 0.22 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.040.040.040.06 - 1.0 1.0 1.0 0.0 0.040.040.040 0.040.040.040.09 - 1.0 1.0 1.0 0.0 0.040.040.050 0.050.030.030.07 - 1.0 1.0 1.0 0.0 0.040.040.050	(1, 10.0, 10.0, 10.0, 0.1) 25 -0.790.790.790.17 0.0 0.0 0.0 0.26 24 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.26 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.20 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.1 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.1 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.1 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.1 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.1 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.1 1.0 1.0 1.0 0.1 0.0 0.0 0.0 0.0 0.0 0.1 1.0 1.0 1.0 0.1 0.0 0.0 0.0 0.0 0.0 0.1	(1, 10.0, 10.0, 10.0, 1) -0.810.810.810.15 0.0 0.0 0.0 0.24 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.24 -1.0 1.0 1.0 0.0 0.050.050.060.06 -1.0 1.0 1.0 0.060.060.060.060.07 -1.0 1.0 1.0 0.0 0.050.050.050.060.07	(1, 10.0, 10.0, 10.0, 10.0) -0.810.810.810.15 0.0 0.0 0.0 0.25 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.25 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.25 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
wt, no DNAdam (10.0, 0.1, 0.1, 0.1, 0.1) wt, no DNAdam (0.0) (10.10	- 0.8 0.8 0.8 0.0 0.0 0.0 0.0 0.0 0.0 - 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	.8 0.8 0.03 0.0 0.0 0.0 0.0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0 0.0 0.0 0.02 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	(10.0, 0.1, 0.1, 10.0, 0.1) 0.810.810.810.03 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 (10.0, 0.1, 1, 10.0, 0.1)	(10.0, 0.1, 0.1, 10.0, 1)	(10.0, 0.1, 0.1, 10.0, 10.0) -0.8 0.8 0.8 0.04 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0
wt. no DNAdam - 0.820.820.820.820.820.820.820.820.820.82	-0.790.790.790.04 0.0 0.0 0.0 0.05 -0.810 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -0.0 -0	810.810.03 0.0 0.0 0.0 0.03 -0.790.790.7 10 1.0 0.0 0.0 0.0 0.0 0.02 -1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	90.04 0.0 0.0 0.0 0.04 - 0.810.810.810.04 0 0.0 0.0 0.0 0.0 0.04 - 1.0 1.0 0.0 0 0.0 0.0 0.0 0.0 0.0 1.0 - 1.0 1.0 0.0 0 0.0 0.0 0.0 0.0 0.0 - 1.0 1.0 0.0 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0	.02	-0.8 0.8 0.8 0.03 0.0 0.0 0.0 0.04 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.02 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.02 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0	0.8 0.8 0.8 0.04 0.0 0.0 0.0 0.04 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
wt. no DNAdam -0.8 0.8 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0	- 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.01 - 1.0 1 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.01 - 1.0 1 - 1.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0	0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	- 0.8 0.8 0.8 0.04 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.8 0.8 0.8 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	-0.820.820.820.02 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	- 0.8 0.8 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0
krasΔ, no DNAdam, 0/0 10 10 10 00 00 00 00 00 00 krasΔ, DNAdam, 0/0 10 10 10 00 00 00 00 00 00 00 00 00 00	- 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 1 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1	10 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1	0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.00	.07 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
krasΔ, no DNAdam, 0/0 - 10 10 10 00 00 00 00 00 00 00 00 00 00	(10.0, 1, 10.0, 0.1, 1)	0.0, 1, 10.0, 0.1, 10.0) (10.0, 0.1, 10.0)	1, 10.0, 1, 0.1) - 1.0 1.0 1.0 0.0 - 1.0 1.0 1.0 0.0	10.0, 1, 1) (10.0, 1, 10.0, 10.0, 1, 10.0, 1, 10.0, 1, 10.0, 1, 10.0, 1, 10.0, 1, 10.0, 1, 1	06 - 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.19 1.0 1.0 1.0 0.0 0.010.010.020.07 1.0 1.0 1.0 0.080.020.020.020.08 1.0 1.0 1.0 0.090.010.010.010.07 1.0 1.0 1.0 0.090.010.010.010.09 (10.0, 1, 10.0, 10.0, 1)	1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.19 1.0 1.0 1.0 0.0 0.0 0.0 0.20.020.020.06 1.0 1.0 1.0 0.0 0.0 0.20.020.020.06 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
krasΔ, no DNAdam, 0/0 10 10 10 00 00 00 00 00 00 krasΔ, DNAdam, 0/0 10 10 10 10 00 00 00 00 00 00 00 krasΔ, DNAdam, 0/mk2i 10 10 10 00 00 00 00 00 00 krasΔ, DNAdam, 0/mk2i 10 10 10 00 00 00 00 00 00 00 krasΔ, DNAdam, chek1i/mk2i 10 10 10 00 00 00 00 00 00 00 00 00 00	(10.0, 10.0, 0.1, 0.1, 1) (10.0, 790.790.16 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0, 10.0, 0.1, 0.1, 10.0) 20, 10, 0.0, 0.1, 0.1, 10.0) 20, 10, 0.1, 0.1, 0.0, 0.1, 0.1, 10.0) 20, 10, 0.1, 0.1, 0.0, 0.1, 10.0) 20, 10, 0.0, 0.1, 0.1, 10.0) 20, 10, 0.0, 0.1, 0.1, 10.0)	10.0, 0.1, 1, 0.1) 10.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0,		.00	1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.2 0.2 1.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.19 1.0 1.0 1.0 0.0 0.040.040.040.06 1.0 1.0 1.0 0.070.030.030.040.07 1.0 1.0 1.0 0.070.030.030.030.08 (10.0, 10.0, 0.1, 10.0, 10.0)
krasΔ, DNAdam, 0/0 10 10 10 10 10 10 10 10 10 10 10 10 10	(10.0, 10.0, 1, 0.1, 1) (10.0, 10.0,	0.0, 10.0, 1, 0.1, 10.0) (10.0, 810.810.15 0.0 0.0 0.0 0.18	10.0, 1, 1, 0.1) 10.0, 0.0, 0.0, 0.0, 0.0, 0.1 10.0, 1, 1, 0.1) 10.0, 1, 1, 0.1) 10.0, 1, 1, 0.1 10.0, 1, 1, 0.1 10.0, 1, 1, 0.1 10.0, 1, 1, 0.1	0.0 0.0 0.0 0.22 -0.8 0.8 0.8 0.16 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	(10.0, 10.0, 1, 10.0, 0.1) 	(10.0, 10.0, 1, 10.0, 1) -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.24 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.22 -1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0	1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1
krasΔ, DNAdam, Chek1i/0 10 10 10 10 10 10 10 10 10 10 10 10 10	- 1.0 1.0 1.0 0.13 0.0 0.0 0.0 0.13 - 1.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0	0 1.0 0.12 0.0 0.0 0.0 0.12 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.0, 12, 0.0, 0.0, 0.0, 0.1, 0.1, 0.0, 0.0, 0.0	, 10.0, 1, 1) (10.0, 10.0, 10.0, 1, 10.0) 1.0 0.0 0.0 0.0 0.24	11	1.0 1.0 1.0 0.0 0.020.020.020.09 1.0 1.0 1.0 0.1 0.030.030.040.11 1.0 1.0 1.0 0.0 0.030.030.030.1 1.0 1.0 1.0 0.120.020.020.12 (10.0, 10.0, 10.0, 10.0, 1) 	1.0 1.0 1.0 0.0 0.040.040.040.08 1.0 1.0 1.0 0.090.040.040.040.09 1.0 1.0 1.0 0.0 0.090.030.040.07 1.0 1.0 1.0 0.1 0.040.040.04 0.1 (10.0, 10.0, 10.0, 10.0, 10.0) -0.810.810.810.15 0.0 0.0 0.0 0.24 -1.0 1.0 1.0 0.0 0.0 0.0 0.26 -1.0 1.0 1.0 0.0 0.0 0.0 0.27
krasΔ, DNAdam, chek1i/0 10 10 10 10 10 10 10 10 10 10 10 10 10	AAF AAT AAT SSSB SP3 SP3 SP3 SP4 Tion 00 00 00 00 00 00 00 00 00 00 00 00 00	AAA	ATR FIOR TOTAL TOT	25 SB	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	AAF ACT 10 10 10 10 10 10 10 10 10 10 10 10 10	BRAF MEK p38 CDK1 TM ATR SB SSB CASP3 feration
BI ATM CC DSB CA	BI CC ATM DSB 3 CA Proliferat	ATM ATM ATM ATM ADS STATE OF S	ATM ATM ATM ATM ATM ATM ATM	DSB 26 CAS Proliferate ATM / DSB 26 CAS	BI CL CL ATM A DSB S CAS	BB N CE DSB S CAS Proliferat	BB N CC CTM DSB 2 CA Proliferat