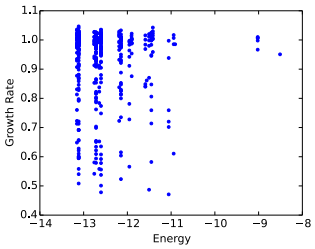
(A) Dataset	(B) Growth Rate	(C) Expression Level	(D) K_A/K_S Ratio	(E) TSS Distance

REB1 (essential TF)

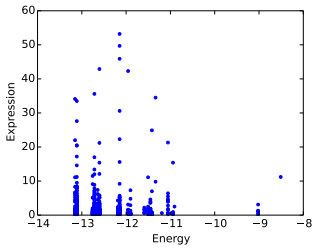
Total sites: 749
Unique sites: 235

	Essential	**Noness.**	p
Total Data	213	468	
Expr Data	209	433	
S. Par. Data	194	358	
$\langle E \rangle$	-12.632	-12.540	0.090
V	0.336	0.471	0.245
$\langle \Delta E^2 \rangle$	0.103	0.206	0.152
$\langle d \rangle$	0.847	0.904	0.511

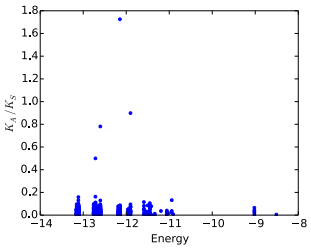
ρ = -0.024, p = 0.604



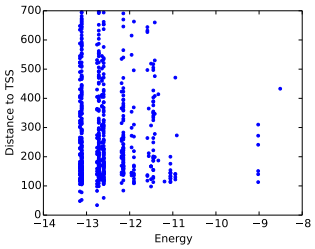
ρ = -0.015, p = 0.700



ρ = 0.003, p = 0.949



ρ = -0.018, p = 0.614

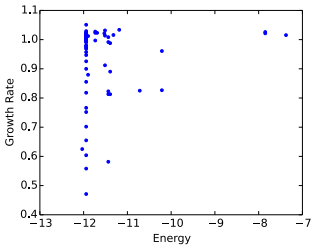


ROX1 (nonessential TF)

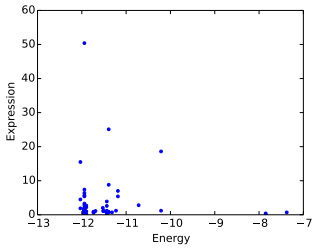
Total sites: 93
Unique sites: 58

	Essential	**Noness.**	p
Total Data	18	65	
Expr Data	18	64	
S. Par. Data	18	47	
$\langle E \rangle$	-11.683	-11.575	0.680
V	0.205	0.833	0.546
$\langle \Delta E^2 \rangle$	0.015	0.697	0.274
$\langle d \rangle$	0.824	0.737	0.779

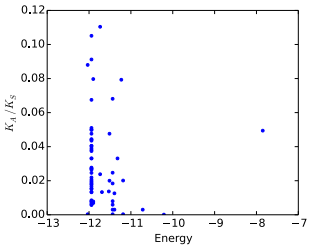
ρ = 0.141, p = 0.260



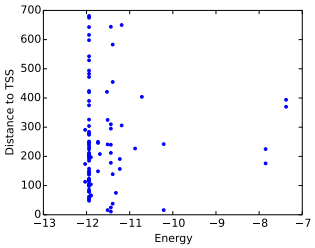
ρ = 0.046, p = 0.675



ρ = -0.238, p = 0.054



ρ = 0.029, p = 0.779

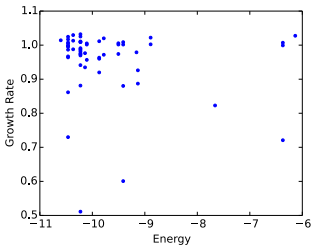


MET32 (nonessential TF)

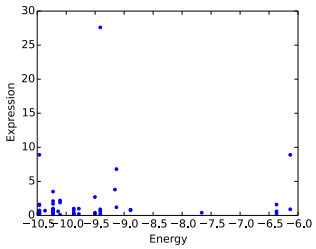
Total sites: 68
Unique sites: 39

	Essential	**Noness.**	p
Total Data	5	59	
Expr Data	4	49	
S. Par. Data	4	48	
$\langle E \rangle$	-8.660	-9.738	0.055
V	3.917	1.136	0.010
$\langle \Delta E^2 \rangle$	0.000	0.006	1.000
$\langle d \rangle$	0.250	0.377	1.000

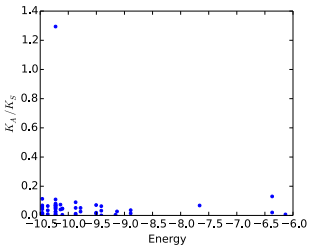
ρ = -0.129, p = 0.329



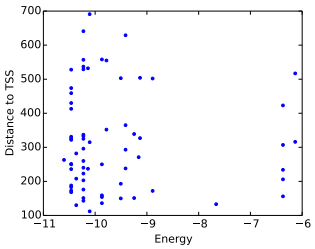
ρ = 0.151, p = 0.281



ρ = -0.030, p = 0.832



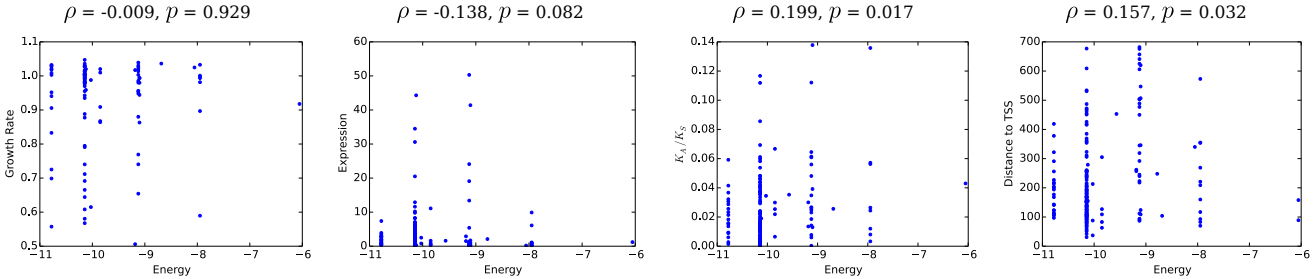
ρ = 0.004, p = 0.977



RPN4 (nonessential TF)

Total sites: 188
Unique sites: 38

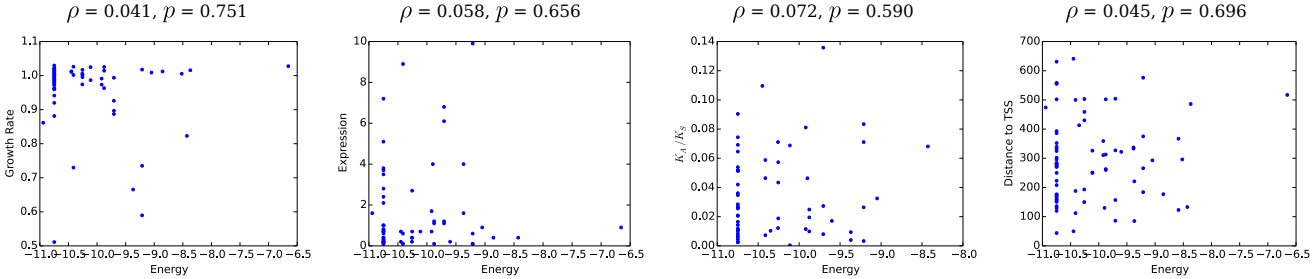
	Essential	**Noness.**	p
Total Data	71	101	
Expr Data	71	89	
S. Par. Data	66	77	
$\langle E \rangle$	-10.003	-9.776	0.048
V	0.304	0.705	0.039
$\langle \Delta E^2 \rangle$	0.084	0.126	0.707
$\langle d \rangle$	0.167	0.231	0.441



MET31 (nonessential TF)

Total sites: 77
Unique sites: 35

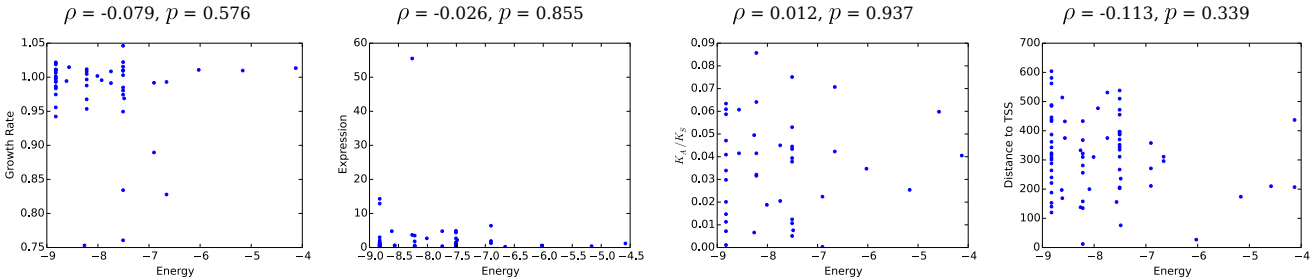
	Essential	**Noness.**	p
Total Data	10	60	
Expr Data	9	53	
S. Par. Data	10	48	
$\langle E \rangle$	-9.968	-10.201	0.391
V	0.328	0.649	0.506
$\langle \Delta E^2 \rangle$	0.000	0.029	0.580
$\langle d \rangle$	0.000	0.151	0.345



PDR3 (nonessential TF)

Total sites: 73
Unique sites: 31

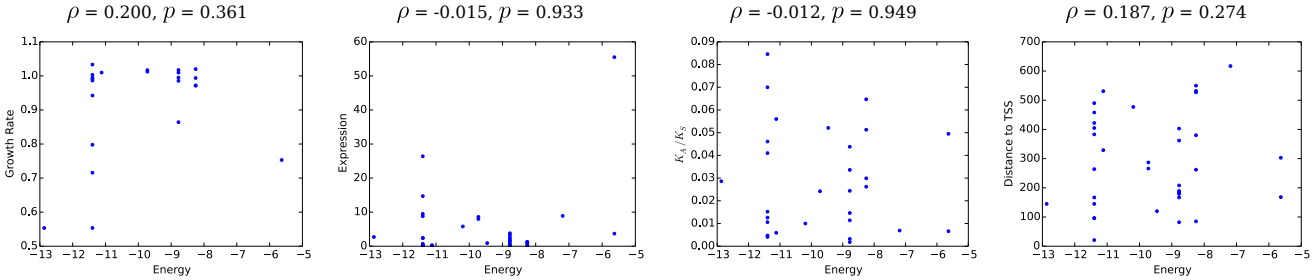
	Essential	**Noness.**	p
Total Data	6	51	
Expr Data	6	47	
S. Par. Data	5	36	
$\langle E \rangle$	-7.340	-7.942	0.173
V	1.826	0.968	0.441
$\langle \Delta E^2 \rangle$	3.300	0.121	0.014
$\langle d \rangle$	1.000	0.304	0.033



YAP7 (nonessential TF)

Total sites: 36
Unique sites: 22

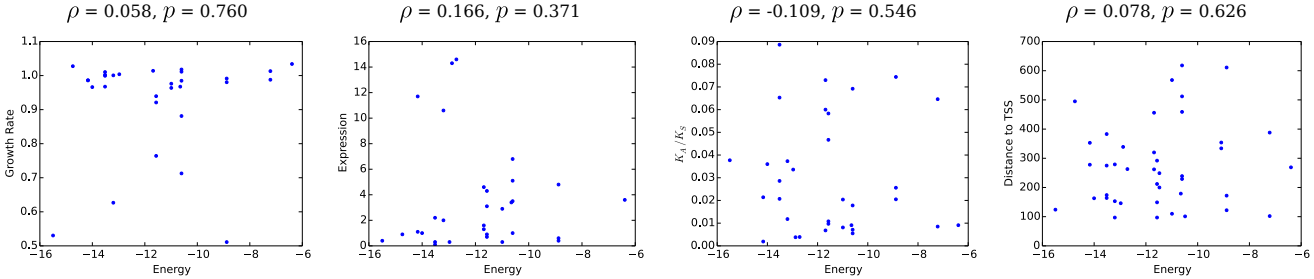
	Essential	**Noness.**	p
Total Data	13	23	
Expr Data	13	23	
S. Par. Data	11	18	
$\langle E \rangle$	-9.076	-9.936	0.158
V	2.575	2.865	0.828
$\langle \Delta E^2 \rangle$	1.718	1.073	0.717
$\langle d \rangle$	0.583	0.182	0.093



BAS1 (nonessential TF)

Total sites: 41
Unique sites: 21

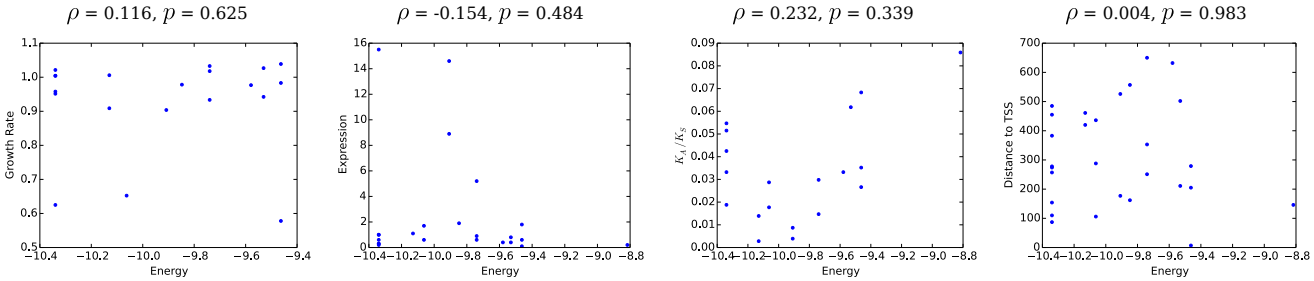
	Essential	**Noness.**	p
Total Data	5	30	
Expr Data	5	26	
S. Par. Data	5	28	
$\langle E \rangle$	-12.107	-11.518	0.589
V	0.322	5.328	0.050
$\langle \Delta E^2 \rangle$	0.128	0.600	0.968
$\langle d \rangle$	0.200	0.214	1.000



STB5 (nonessential TF)

Total sites: 28
Unique sites: 19

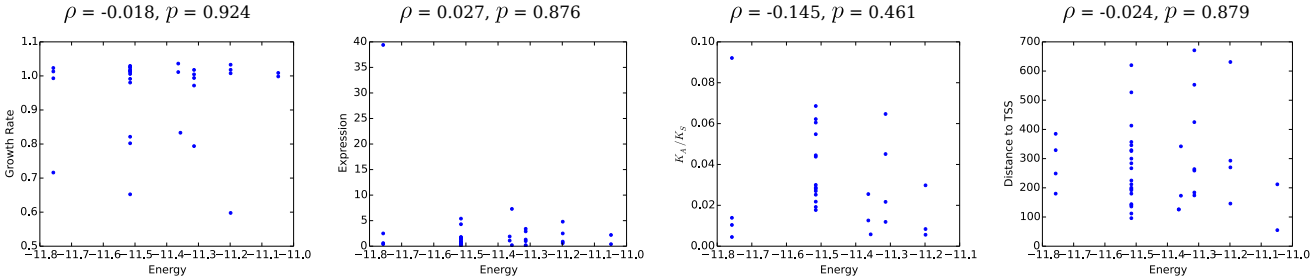
	Essential	**Noness.**	p
Total Data	5	20	
Expr Data	5	18	
S. Par. Data	5	14	
$\langle E \rangle$	-9.893	-9.918	0.912
V	0.317	0.116	0.074
$\langle \Delta E^2 \rangle$	0.002	0.000	0.217
$\langle d \rangle$	0.400	0.222	0.636



AFT1 (nonessential TF)

Total sites: 42
Unique sites: 18

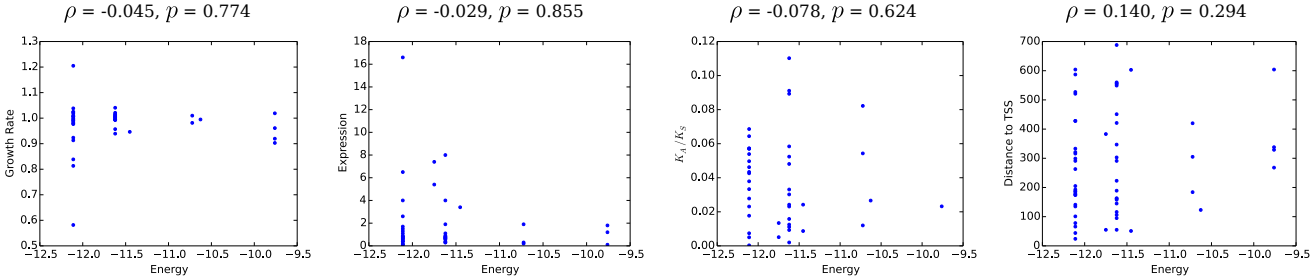
	Essential	**Noness.**	p
Total Data	5	30	
Expr Data	5	29	
S. Par. Data	5	23	
$\langle E \rangle$	-11.475	-11.425	0.603
V	0.006	0.037	0.128
$\langle \Delta E^2 \rangle$	0.000	0.018	0.673
$\langle d \rangle$	0.400	0.391	1.000



CUP9 (nonessential TF)

Total sites: 58
Unique sites: 13

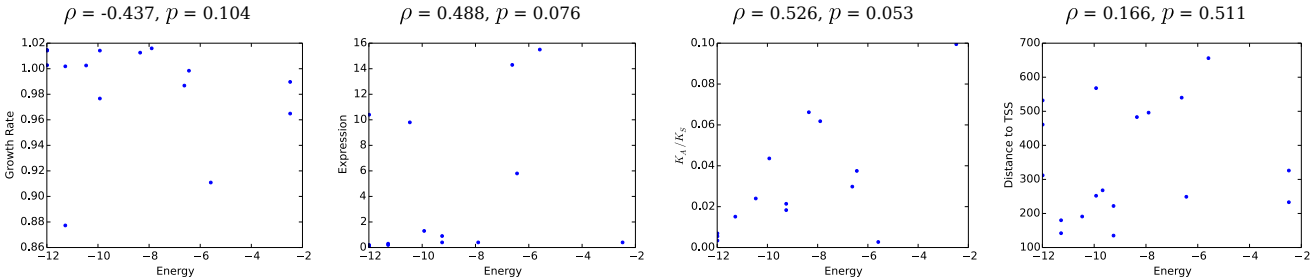
	Essential	**Noness.**	p
Total Data	11	43	
Expr Data	11	32	
S. Par. Data	11	31	
$\langle E \rangle$	-11.681	-11.607	0.753
V	0.141	0.494	0.290
$\langle \Delta E^2 \rangle$	0.024	0.109	0.907
$\langle d \rangle$	0.100	0.139	1.000



MCM1 (essential TF)

Total sites: 18
Unique sites: 13

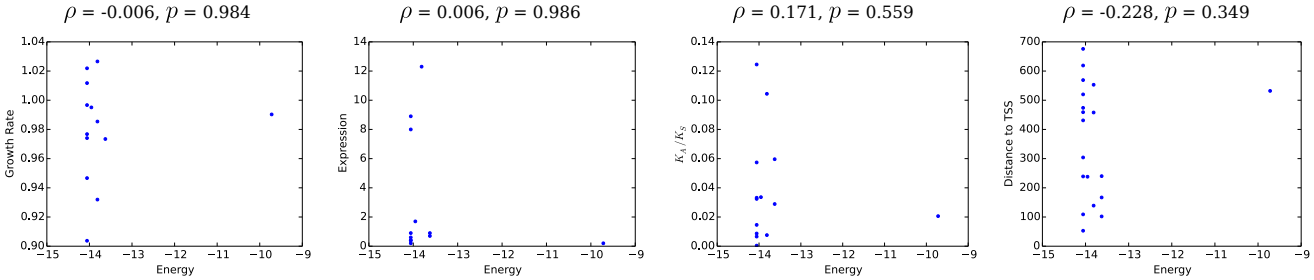
	Essential	**Noness.**	p
Total Data	2	15	
Expr Data	2	12	
S. Par. Data	2	12	
$\langle E \rangle$	-9.252	-8.580	0.794
V	0.000	9.927	0.080
$\langle \Delta E^2 \rangle$	0.013	1.360	0.882
$\langle d \rangle$	2.000	0.800	0.132



CIN5 (nonessential TF)

Total sites: 19
Unique sites: 12

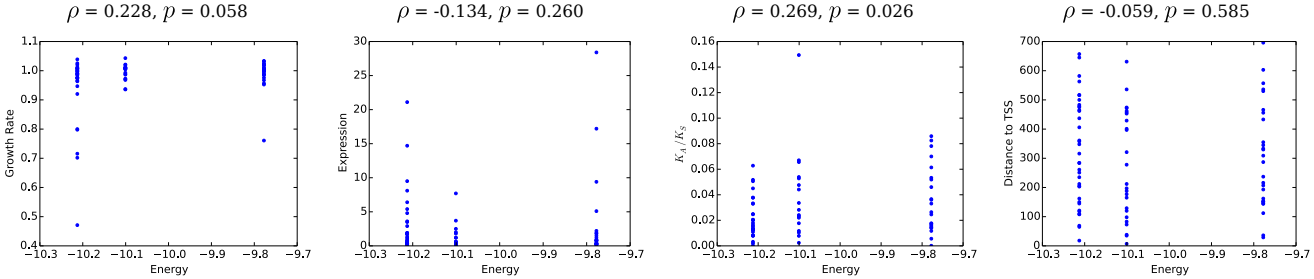
	Essential	**Noness.**	p
Total Data	2	13	
Expr Data	2	9	
S. Par. Data	2	11	
$\langle E \rangle$	-13.841	-13.625	0.886
V	0.046	1.290	1.000
$\langle \Delta E^2 \rangle$	0.030	0.036	1.000
$\langle d \rangle$	1.000	0.417	0.461



GAT1 (nonessential TF)

Total sites: 88
Unique sites: 11

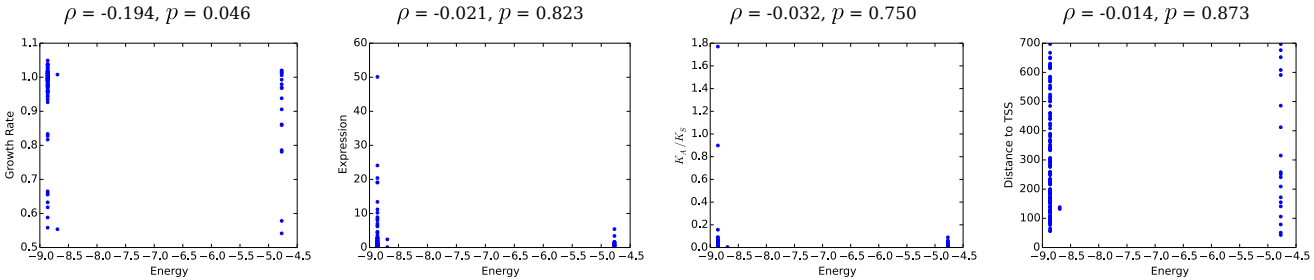
	Essential	**Noness.**	p
Total Data	8	70	
Expr Data	8	63	
S. Par. Data	7	60	
$\langle E \rangle$	-10.036	-10.046	0.944
V	0.041	0.035	0.543
$\langle \Delta E^2 \rangle$	0.027	0.017	1.000
$\langle d \rangle$	0.429	0.353	1.000



MSN2 (nonessential TF)

Total sites: 141
Unique sites: 8

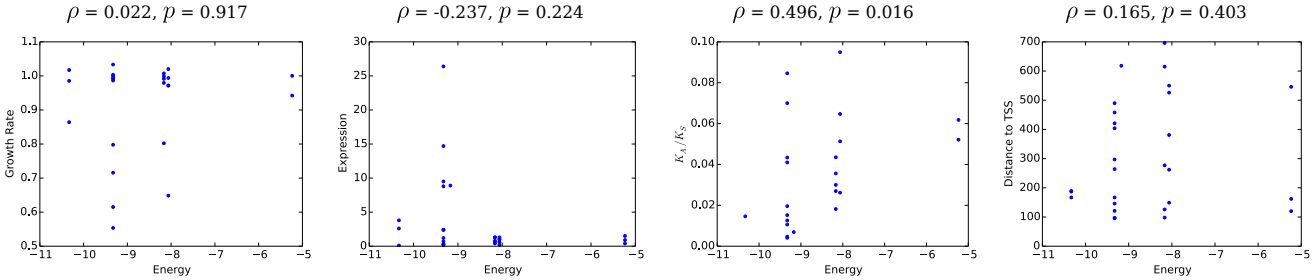
	Essential	**Noness.**	p
Total Data	19	106	
Expr Data	18	96	
S. Par. Data	15	86	
$\langle E \rangle$	-8.433	-8.204	0.662
V	1.577	2.251	0.735
$\langle \Delta E^2 \rangle$	0.985	0.664	1.000
$\langle d \rangle$	0.059	0.079	1.000



CAD1 (nonessential TF)

Total sites: 28
Unique sites: 8

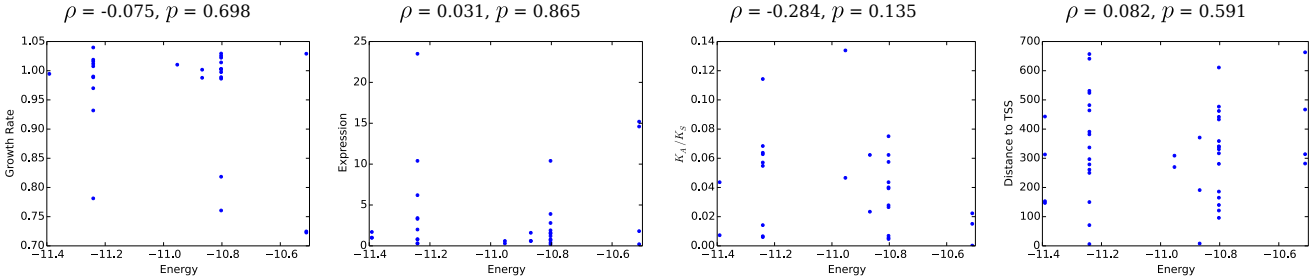
	Essential	**Noness.**	p
Total Data	3	25	
Expr Data	3	25	
S. Par. Data	3	20	
$\langle E \rangle$	-7.910	-8.635	0.465
V	3.585	1.571	0.174
$\langle \Delta E^2 \rangle$	0.000	0.301	0.932
$\langle d \rangle$	0.000	0.200	1.000



ACE2 (nonessential TF)

Total sites: 45
Unique sites: 6

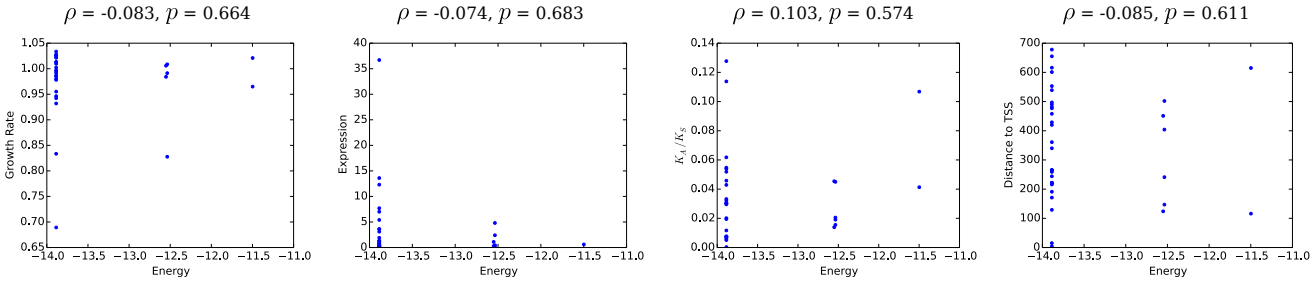
	Essential	**Noness.**	p
Total Data	7	29	
Expr Data	7	26	
S. Par. Data	6	23	
$\langle E \rangle$	-11.023	-10.954	0.552
V	0.094	0.065	0.374
$\langle \Delta E^2 \rangle$	0.000	0.000	1.000
$\langle d \rangle$	0.000	0.000	1.000



YAP3 (nonessential TF)

Total sites: 38
Unique sites: 6

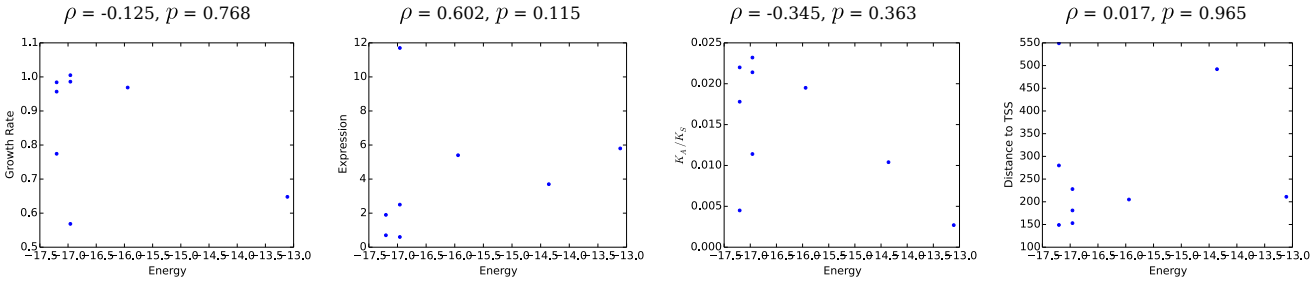
	Essential	**Noness.**	p
Total Data	8	30	
Expr Data	8	25	
S. Par. Data	8	24	
$\langle E \rangle$	-13.718	-13.503	0.530
V	0.199	0.535	0.521
$\langle \Delta E^2 \rangle$	0.000	0.308	0.560
$\langle d \rangle$	0.000	0.276	0.172



GCN4 (nonessential TF)

Total sites: 9
Unique sites: 5

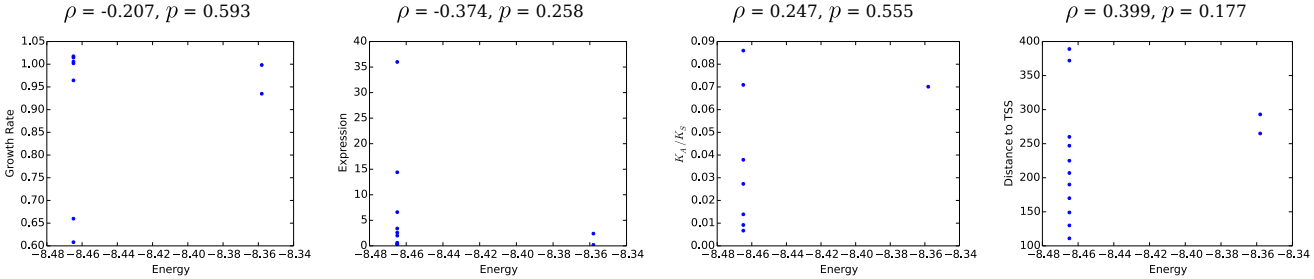
	Essential	**Noness.**	p
Total Data	1	8	
Expr Data	1	7	
S. Par. Data	1	8	
$\langle E \rangle$	-14.357	-16.442	0.222
V	0.000	1.736	0.889
$\langle \Delta E^2 \rangle$	1.588	0.025	0.125
$\langle d \rangle$	2.000	0.429	0.125



MATA2 (nonessential TF)

Total sites: 13
Unique sites: 4

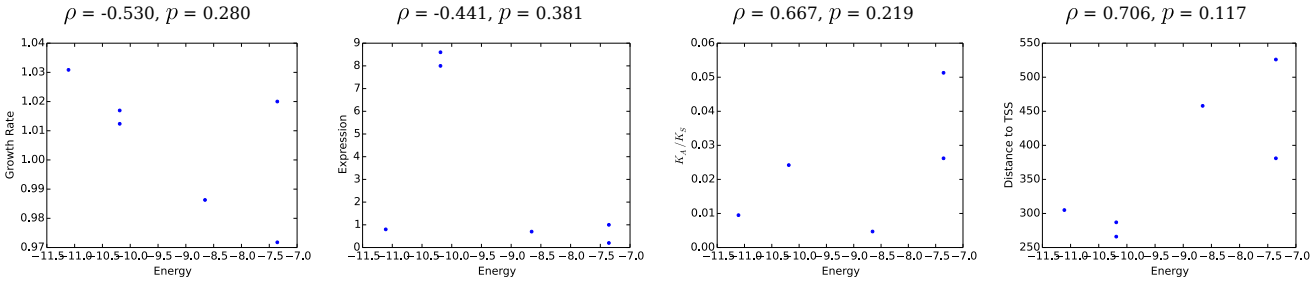
	Essential	**Noness.**	p
Total Data	1	9	
Expr Data	1	9	
S. Par. Data	1	6	
$\langle E \rangle$	-8.465	-8.441	1.000
V	0.000	0.002	0.801
$\langle \Delta E^2 \rangle$	0.011	0.006	1.000
$\langle d \rangle$	1.000	0.500	1.000



YAP1 (nonessential TF)

Total sites: 6
Unique sites: 4

	Essential	**Noness.**	p
Total Data	0	6	
Expr Data	0	6	
S. Par. Data	0	5	
$\langle E \rangle$	—	-9.143	—
V	—	2.114	—
$\langle \Delta E^2 \rangle$	—	3.349	—
$\langle d \rangle$	—	0.600	—

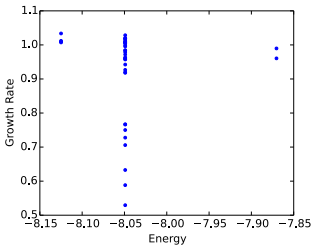


CBF1 (nonessential TF)

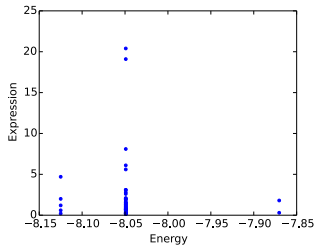
Total sites: 49
Unique sites: 3

	Essential	**Noness.**	p
Total Data	7	38	
Expr Data	7	38	
S. Par. Data	6	31	
$\langle E \rangle$	-8.060	-8.048	0.685
V	0.001	0.002	0.872
$\langle \Delta E^2 \rangle$	0.009	0.007	0.987
$\langle d \rangle$	0.143	0.139	1.000

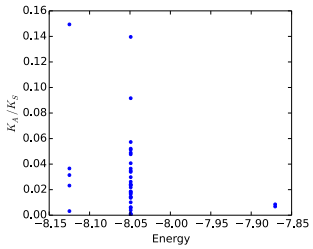
ρ = -0.316, p = 0.053



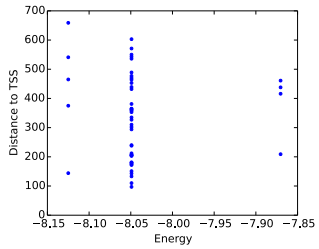
ρ = -0.025, p = 0.867



ρ = -0.220, p = 0.185



ρ = -0.080, p = 0.586

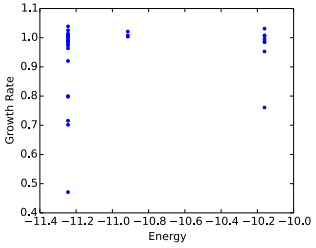


DAL80 (nonessential TF)

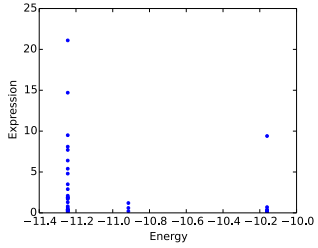
Total sites: 44
Unique sites: 3

	Essential	**Noness.**	p
Total Data	4	34	
Expr Data	4	31	
S. Par. Data	4	30	
$\langle E \rangle$	-11.245	-10.961	0.426
V	0.000	0.205	0.238
$\langle \Delta E^2 \rangle$	0.000	0.224	0.546
$\langle d \rangle$	0.000	0.303	0.545

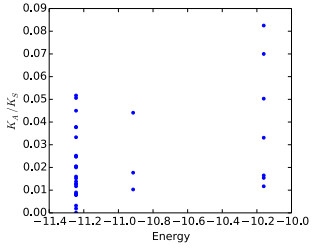
ρ = 0.151, p = 0.395



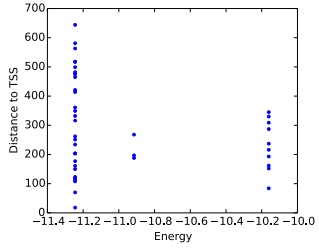
ρ = -0.362, p = 0.030



ρ = 0.277, p = 0.107



ρ = -0.190, p = 0.217

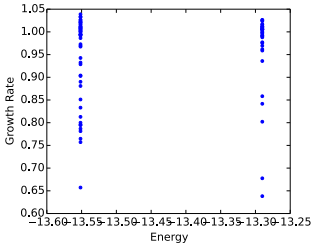


AFT2 (nonessential TF)

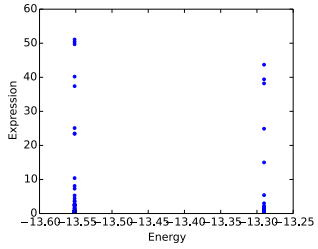
Total sites: 118
Unique sites: 2

	Essential	**Noness.**	p
Total Data	17	80	
Expr Data	17	71	
S. Par. Data	15	62	
$\langle E \rangle$	-13.505	-13.447	0.100
V	0.010	0.016	0.067
$\langle \Delta E^2 \rangle$	0.000	0.006	0.344
$\langle d \rangle$	0.000	0.087	0.343

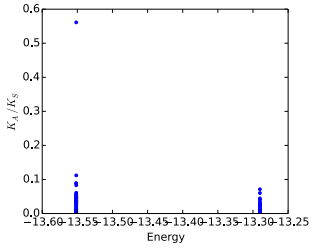
ρ = 0.062, p = 0.586



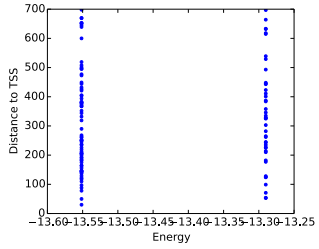
ρ = 0.037, p = 0.731



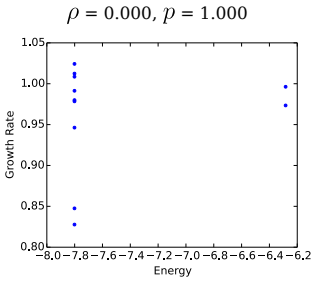
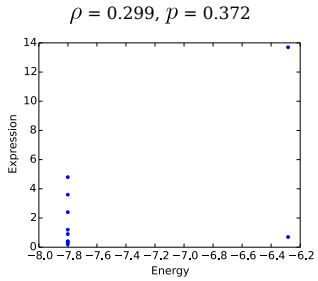
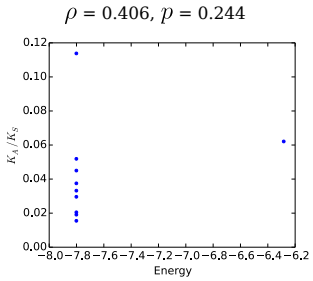
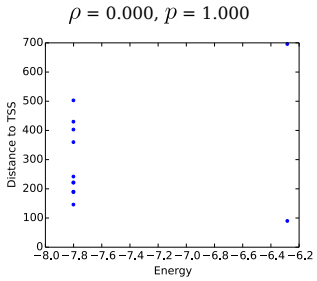
ρ = -0.257, p = 0.023



ρ = 0.061, p = 0.510



SKO1 (essential TF)

Total sites: 12
Unique sites: 2

	Essential	**Noness.**	p
Total Data	1	11	
Expr Data	1	10	
S. Par. Data	1	9	
$\langle E \rangle$	-7.801	-7.525	1.000
V	0.000	0.343	0.834
$\langle \Delta E^2 \rangle$	0.000	0.000	1.000
$\langle d \rangle$	0.000	0.000	1.000