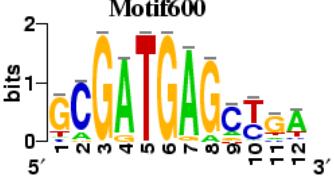
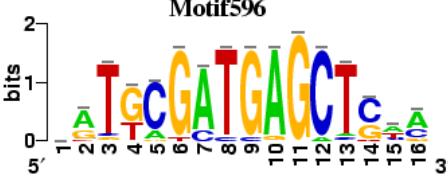
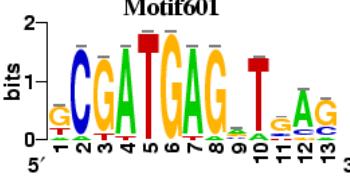
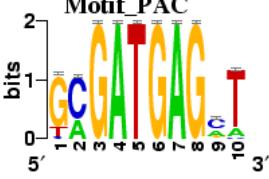
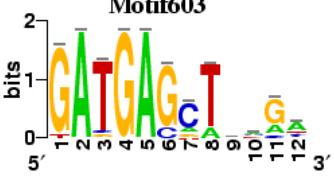
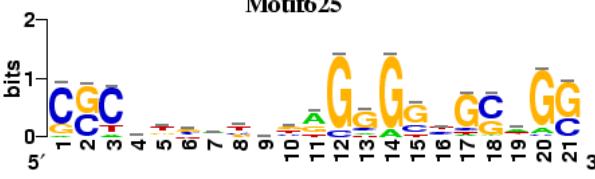
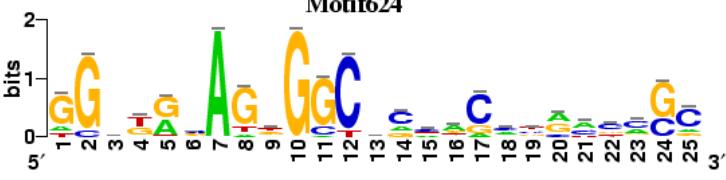
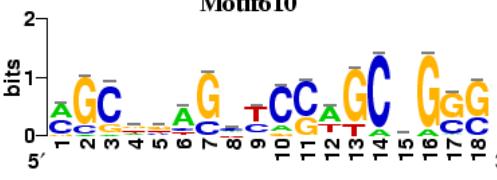


**Figure S2.**

Top 5 motifs selected in each cluster. All 2587 genes are used to make this list.

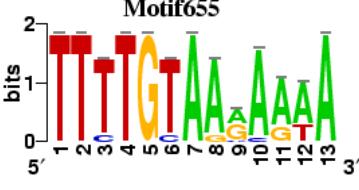
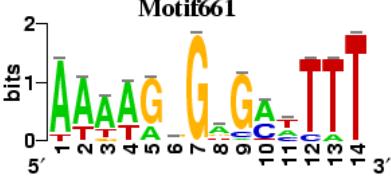
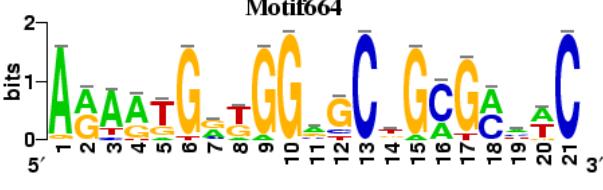
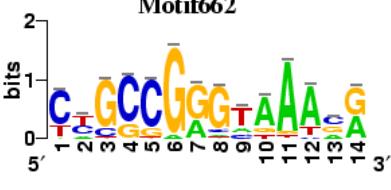
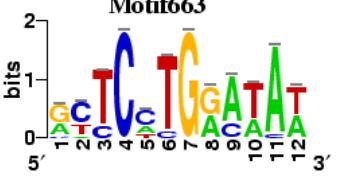
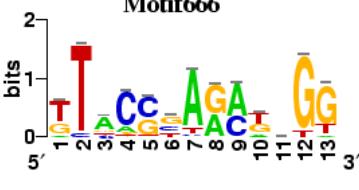
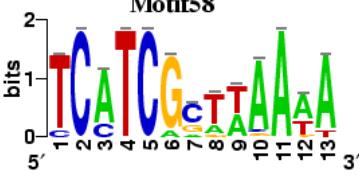
Cluster	Motif	Chi-square statistic	Score cutoff	Posterior probability within cluster	Posterior probability outside cluster
1	Motif198	844.72	0.6	0.802	0.052
	Motif210	518.41	0.55	0.675	0.065
	Motif_RAP1	515.83	0.8	0.635	0.057
	Motif238	415.41	0.7	0.246	0.005
	Motif204	383.13	0.6	0.254	0.007
	Motif342	182.86	0.6	0.200	0.013
	Motif347	172.45	0.65	0.217	0.017

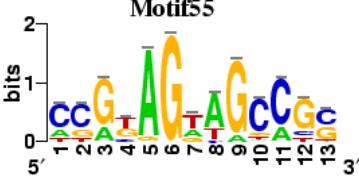
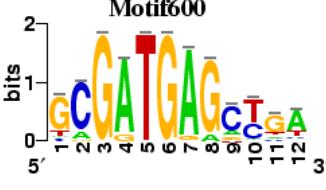
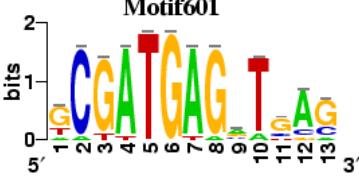
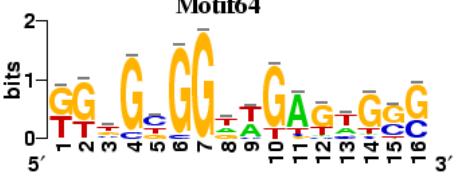
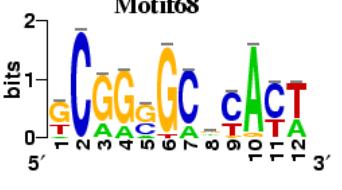
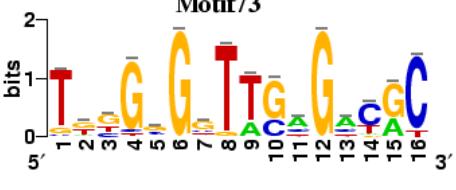
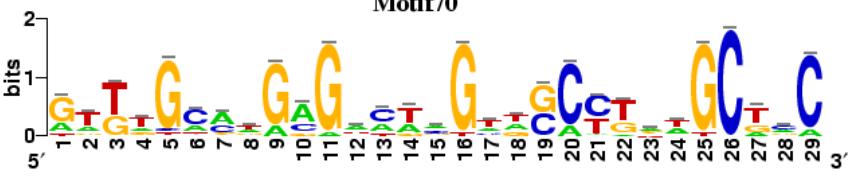
	Motif343		137.25	0.75	0.278	0.037
2	Motif349		123.37	0.75	0.183	0.017
	Motif341		116.26	0.75	0.148	0.011
	Motif446		203.33	0.6	0.229	0.015
	Motif450		176.68	0.65	0.165	0.008
3	Motif460		165.65	0.7	0.330	0.042
	Motif455		142.20	0.65	0.165	0.010
	Motif447		140.23	0.7	0.156	0.009
			455.34	0.6	0.776	0.092

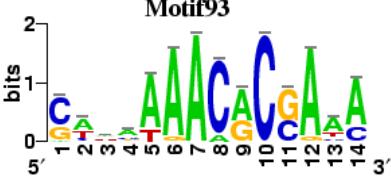
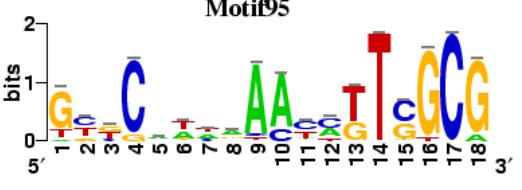
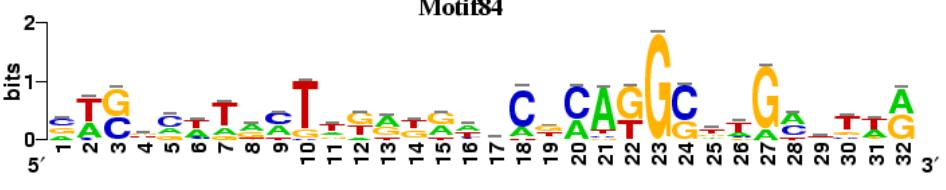
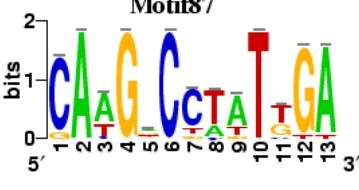
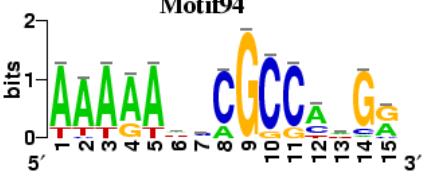
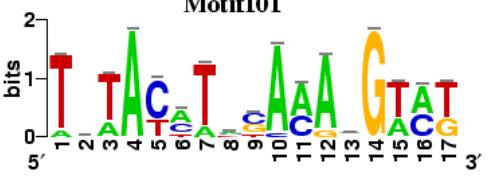
	Motif600			
				
4	Motif596	422.07	0.5	0.617
				0.059
	Motif601	411.40	0.6	0.664
				0.072
	Motif_PAC	400.45	0.75	0.710
				0.087
	Motif603	389.92	0.7	0.664
				0.076
5	Motif625	463.89	0.65	0.256
				0.003
	Motif624	441.93	0.65	0.302
				0.007
	Motif610	379.83	0.75	0.221
				0.003
		363.76	0.65	0.256
				0.006

	Motif608					
	Motif623		320.50	0.75	0.174	0.002
6	Motif631		107.33	0.8	0.174	0.014
	Motif633		101.78	0.7	0.151	0.010
	Motif634		68.43	0.5	0.570	0.198
	Motif630		57.94	0.7	0.465	0.153
	Motif632		54.07	0.65	0.128	0.014
	Motif654		247.46	0.6	0.286	0.015
			230.63	0.65	0.250	0.012

	<b>Motif638</b>				
7					
	<b>Motif640</b>			229.58	0.6 0.286 0.017
	<b>Motif639</b>			199.80	0.65 0.286 0.020
	<b>Motif651</b>			189.87	0.65 0.429 0.051
8	<b>Motif656</b>			179.49	0.7 0.207 0.010
	<b>Motif657</b>			155.95	0.75 0.195 0.011
	<b>Motif658</b>			126.75	0.65 0.207 0.016
	<b>Motif659</b>			117.55	0.7 0.244 0.025
				103.43	0.75 0.110 0.004

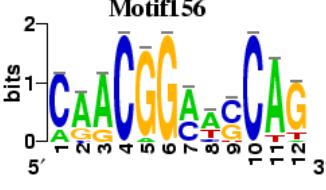
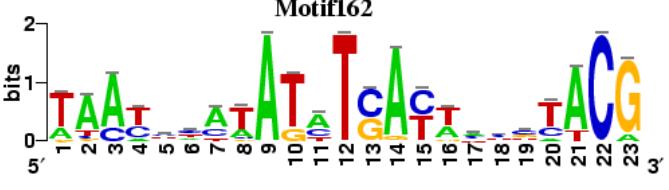
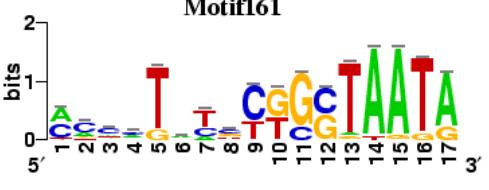
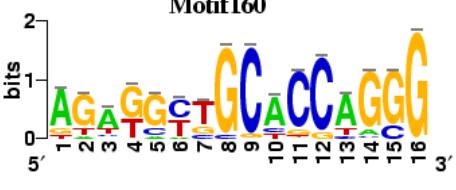
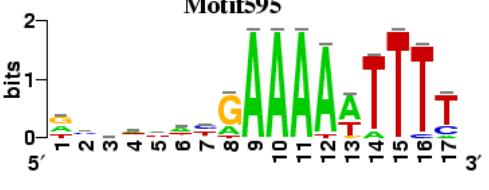
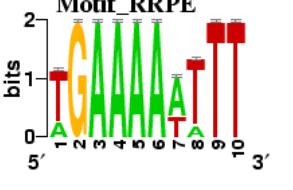
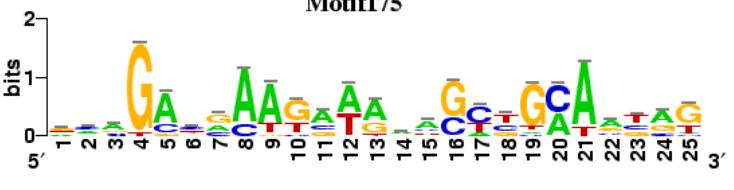
		Motif655				
9		Motif661	182.64	0.75	0.244	0.014
		Motif664	172.02	0.65	0.167	0.006
		Motif662	130.97	0.75	0.167	0.009
		Motif663	80.38	0.65	0.269	0.041
		Motif666	72.02	0.65	0.410	0.100
		Motif58	244.77	0.7	0.343	0.020
		Motif_PAC	189.47	0.65	0.686	0.118
			185.58	0.75	0.086	0.000

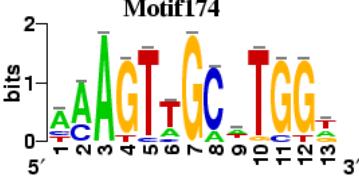
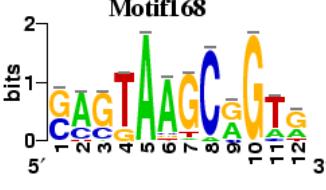
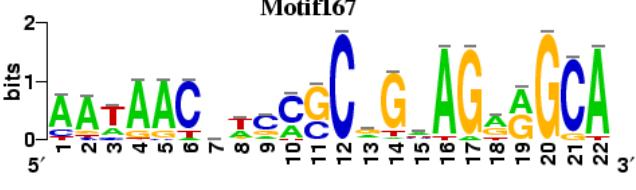
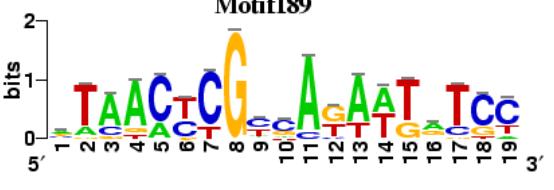
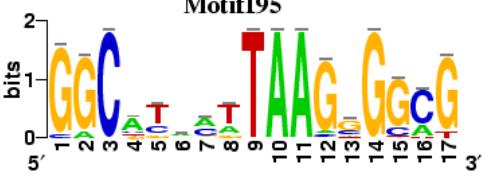
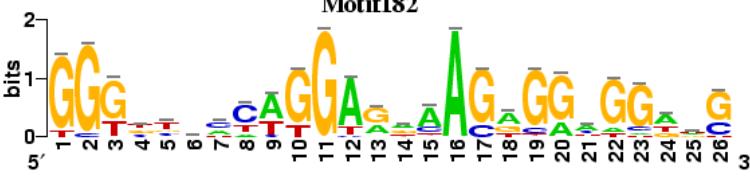
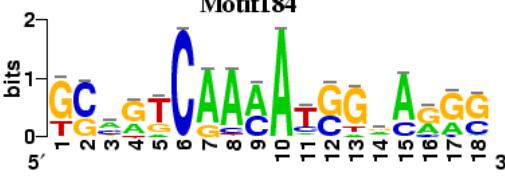
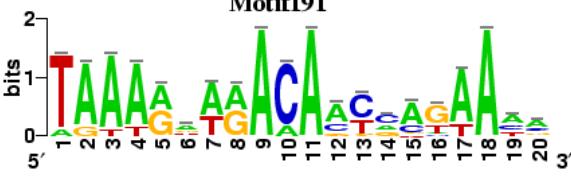
11	Motif55					
	Motif600		180.23	0.55	0.714	0.134
	Motif601		166.74	0.55	0.600	0.100
	Motif64		341.43	0.7	0.289	0.009
	Motif68		313.84	0.8	0.184	0.002
	Motif73		300.17	0.65	0.224	0.005
	Motif71		296.62	0.6	0.211	0.004
	Motif70		288.84	0.7	0.224	0.006
			265.30	0.75	0.290	0.012

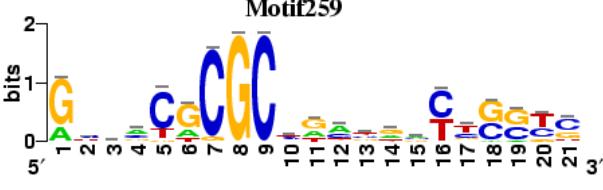
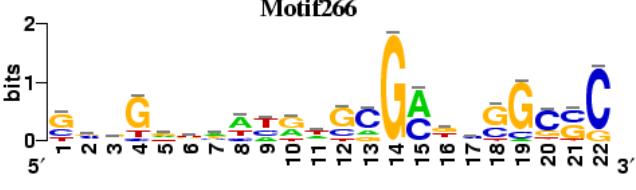
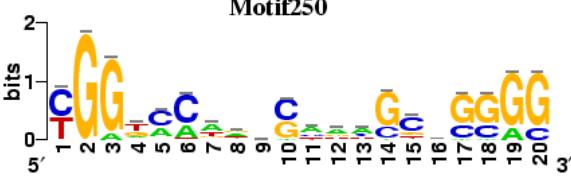
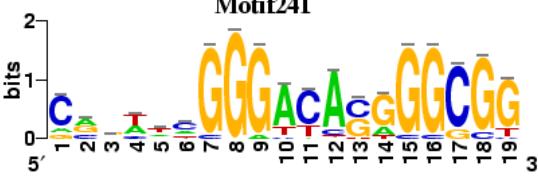
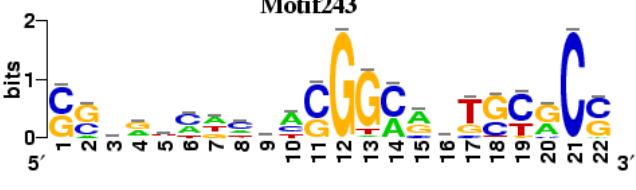
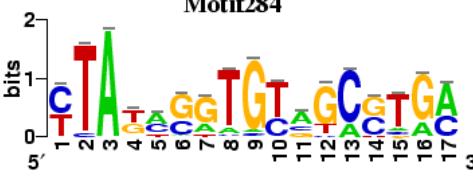
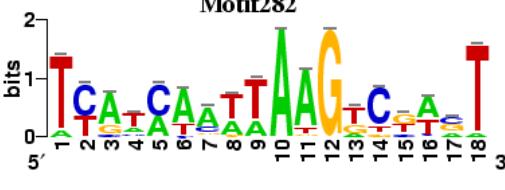
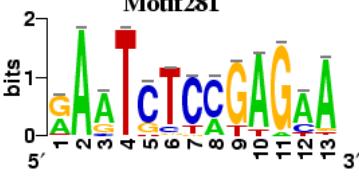
		Motif93						
								
		Motif95			255.44	0.7	0.203	0.005
								
12		Motif84			244.29	0.7	0.203	0.005
								
		Motif87			229.34	0.8	0.116	0.001
								
		Motif94			218.36	0.7	0.290	0.015
								
		Motif100			147.81	0.75	0.197	0.010
								
13		Motif101			85.71	0.6	0.254	0.032
								
		Motif102			65.91	0.7	0.394	0.093
					36.51	0.95	0.028	0.000

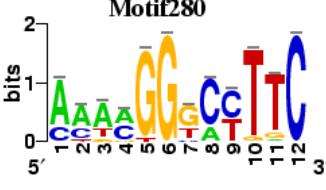
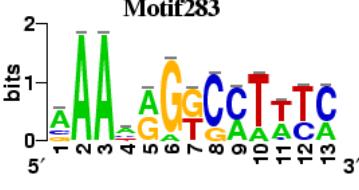
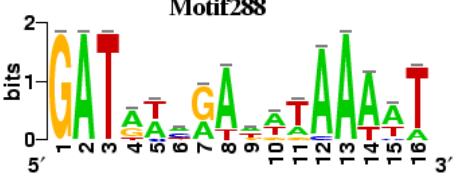
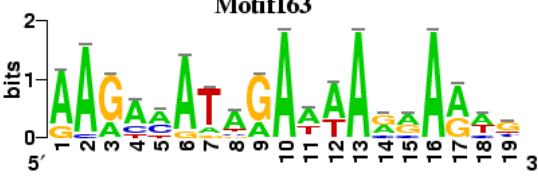
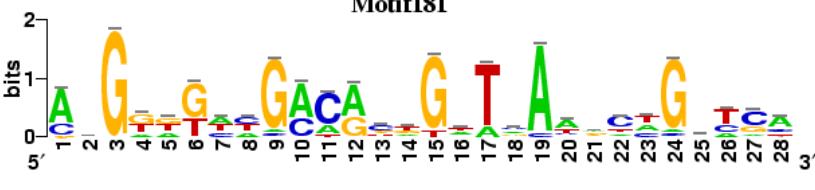
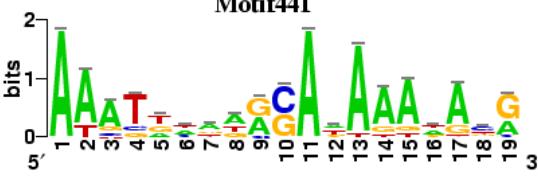
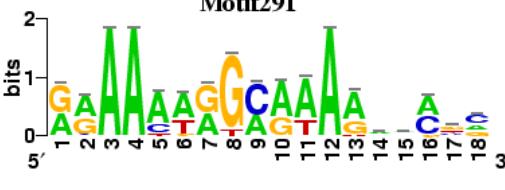
	Motif336				
	Motif452		36.51	0.9	0.028
	Motif111		453.75	0.6	0.254
	Motif106		328.97	0.65	0.254
14	Motif14		328.23	0.65	0.324
	Motif105		297.33	0.7	0.254
	Motif113		290.35	0.65	0.282
	Motif138		537.43	0.65	0.318
			518.39	0.6	0.318
					0.004

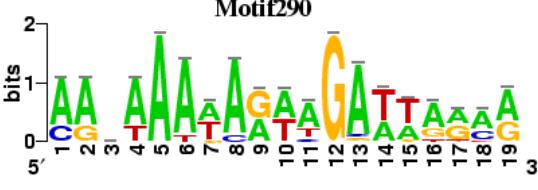
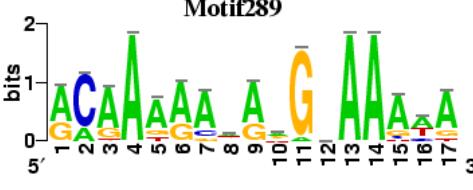
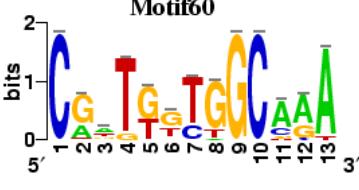
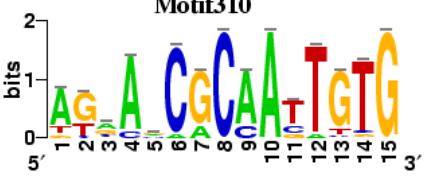
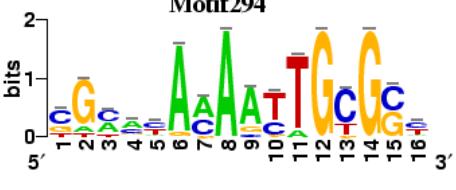
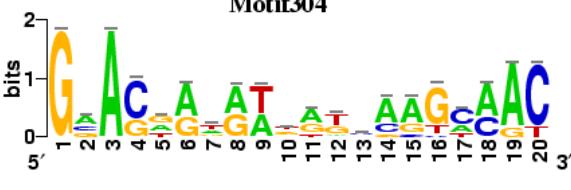
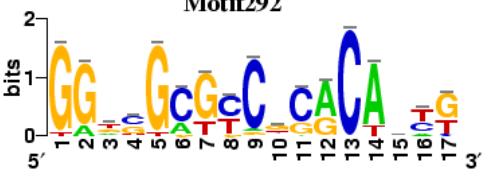
	Motif147			
15		464.59	0.65	0.348
	Motif148			0.008
		458.44	0.75	0.333
	Motif152			0.007
		436.46	0.7	0.424
	Motif134			0.015
		230.00	0.75	0.145
	Motif158			0.002
16		207.40	0.65	0.203
	Motif157			0.007
		146.99	0.7	0.101
	Motif155			0.002
		129.15	0.8	0.145
	Motif159			0.006
		79.32	0.7	0.116
				0.006

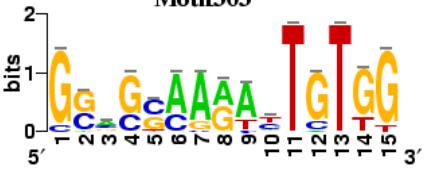
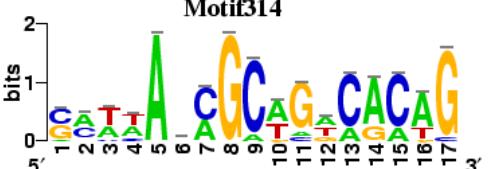
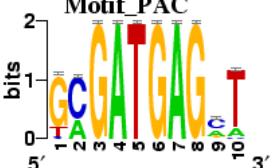
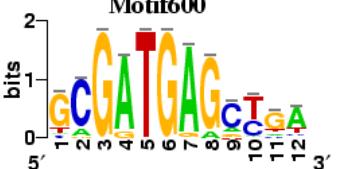
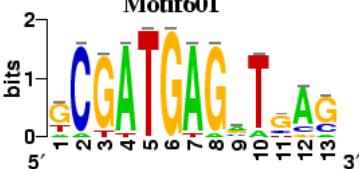
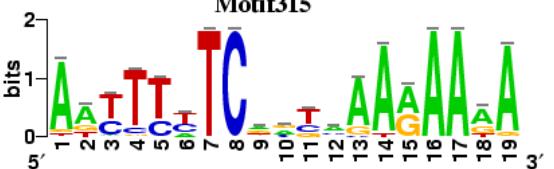
					
17	Motif162		218.83	0.6	0.242
	Motif161		158.27	0.65	0.258
	Motif160		79.19	0.75	0.121
	Motifs95		78.50	0.65	0.545
	Motif_RRPE		74.42	0.8	0.591
18	Motif180		312.47	0.55	0.220
	Motif175		254.60	0.7	0.186
			232.50	0.75	0.153
					0.002

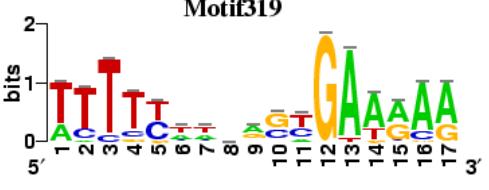
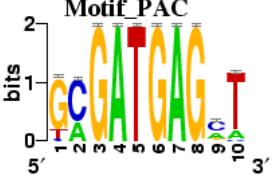
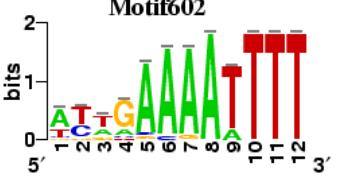
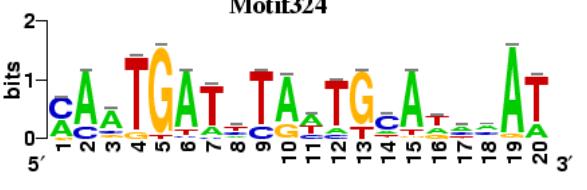
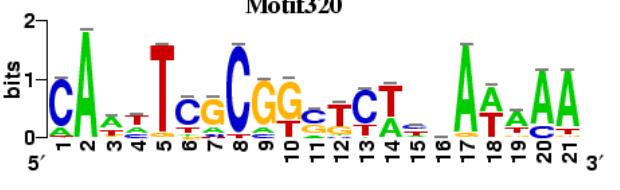
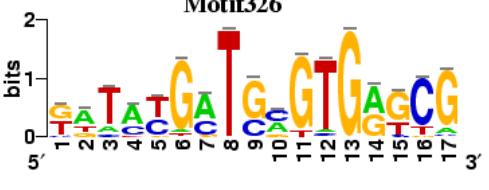
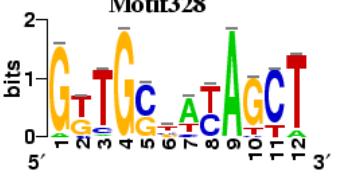
	Motif174			
	Motif168		217.11	0.75 0.220 0.007
	Motif167		213.69	0.5 0.186 0.004
19	Motif189		363.94	0.75 0.250 0.004
	Motif195		347.91	0.7 0.200 0.002
	Motif182		291.16	0.6 0.217 0.004
	Motif184		249.96	0.65 0.183 0.003
	Motif191		229.65	0.8 0.167 0.003
			528.24	0.7 0.379 0.007

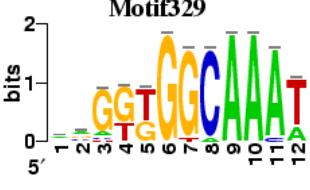
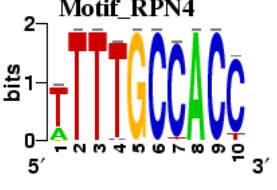
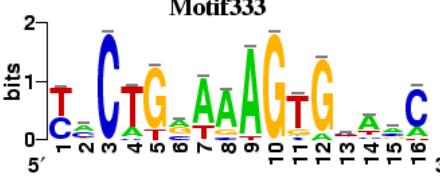
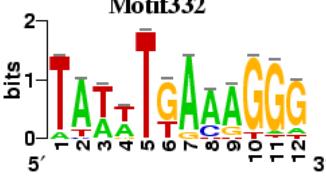
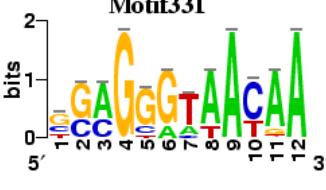
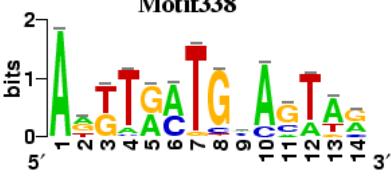
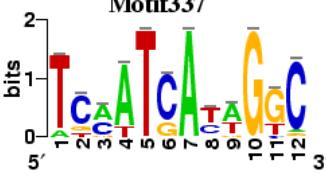
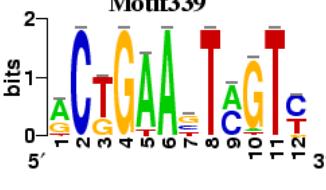
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	Motif266			
		508.35	0.75	0.397
20	Motif250			
20		486.06	0.7	0.379
	Motif241			
		433.06	0.7	0.328
	Motif243			
		419.97	0.65	0.293
	Motif284			
		382.92	0.65	0.246
21	Motif282			
21		204.81	0.75	0.123
	Motif281			
		174.02	0.75	0.193
		143.49	0.75	0.228
				0.012

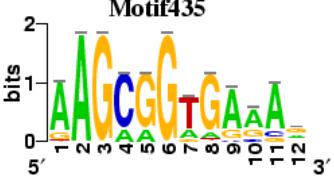
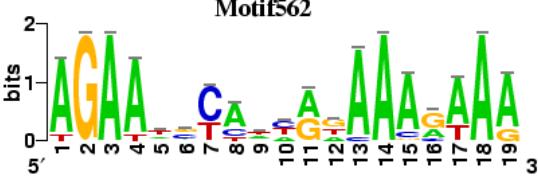
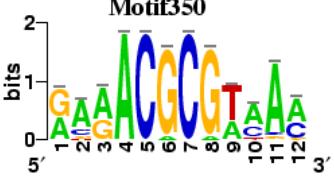
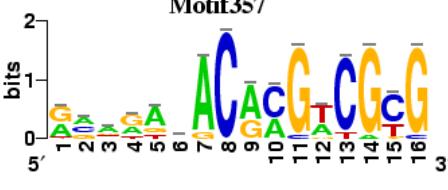
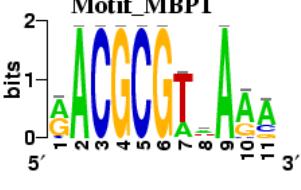
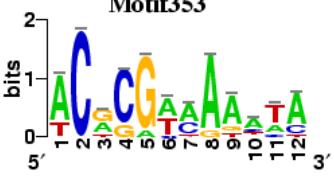
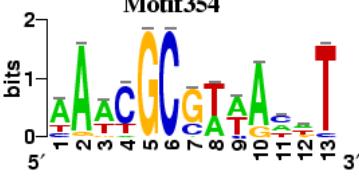
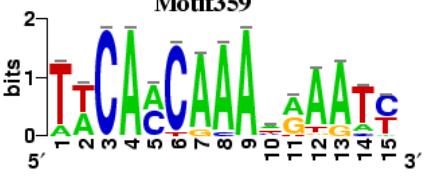
	Motif280				
	Motif283		113.38	0.85	0.158
	Motif288		151.19	0.7	0.436
	Motif287		130.55	0.75	0.145
22	Motif163		29.33	0.9	0.055
	Motif181		22.93	0.85	0.036
	Motif441		22.93	0.95	0.036
	Motif291		101.71	0.7	0.411
			80.06	0.7	0.393
					0.067

23	Motif290 	56.99	0.65	0.643	0.215
	Motif289 	28.73	0.8	0.054	0.002
	Motif60 	22.48	0.95	0.036	0.001
	Motif310 	523.60	0.65	0.264	0.002
	Motif294 	502.59	0.7	0.321	0.004
24	Motif304 	458.54	0.7	0.283	0.003
	Motif292 	402.53	0.8	0.189	0.001
		381.31	0.7	0.283	0.005

		<b>Motif303</b>				
25						
		<b>Motif314</b>			270.97	0.6 0.250 0.006
						
		<b>Motif313</b>			125.19	0.75 0.327 0.029
		<b>Motif_PAC</b>			94.64	0.6 0.615 0.134
						
26		<b>Motif600</b>			77.78	0.6 0.519 0.112
						
26		<b>Motif601</b>			65.36	0.5 0.519 0.127
						
		<b>Motif315</b>			260.57	0.7 0.382 0.019
						
		<b>Motif317</b>			195.90	0.6 0.182 0.004
					122.77	0.65 0.564 0.095

		<b>Motif319</b>				
						
		<b>Motif_PAC</b>			94.63	0.75 0.527 0.103
						
		<b>Motif602</b>			91.22	0.75 0.582 0.129
						
27		<b>Motif324</b>			394.73	0.65 0.345 0.008
						
		<b>Motif320</b>			320.24	0.7 0.236 0.004
						
		<b>Motif326</b>			244.05	0.65 0.200 0.004
						
		<b>Motif328</b>			220.87	0.8 0.182 0.004
						
		<b>Motif321</b>			197.74	0.75 0.164 0.003
					530.22	0.7 0.630 0.025

	Motif329			
				
	Motif_RPN4			
		450.87	0.8	0.500
28	Motif333			
28		214.55	0.7	0.241
28	Motif332			
28		140.64	0.8	0.204
28	Motif331			
28		112.32	0.7	0.296
29	Motif338			
29		204.81	0.75	0.275
29	Motif337			
29		166.55	0.75	0.176
29	Motif339			
29		127.11	0.7	0.137
		51.82	0.9	0.039
				0.000

	Motif435					
	Motif562		51.82	0.95	0.039	0.000
30	Motif350		838.31	0.65	0.843	0.026
	Motif357		569.75	0.7	0.353	0.004
	Motif_MBP1		431.55	0.6	0.627	0.031
	Motif353		386.52	0.75	0.608	0.033
	Motif354		381.11	0.65	0.686	0.044
	Motif359		206.04	0.8	0.200	0.005
			188.16	0.8	0.240	0.009

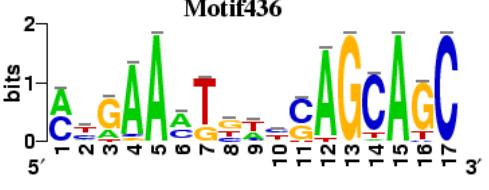
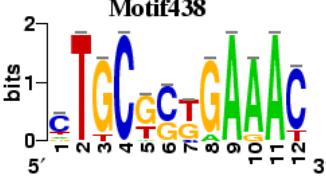
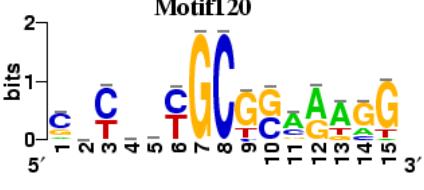
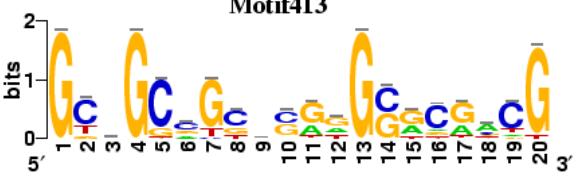
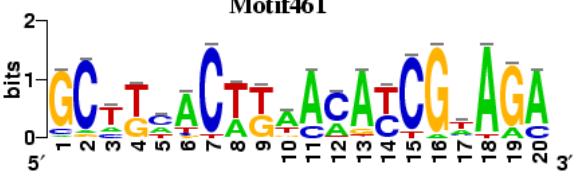
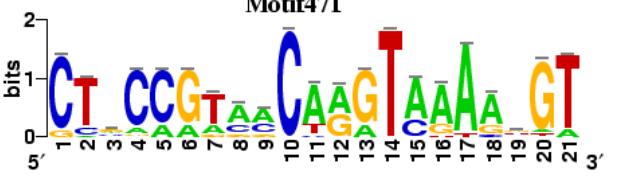
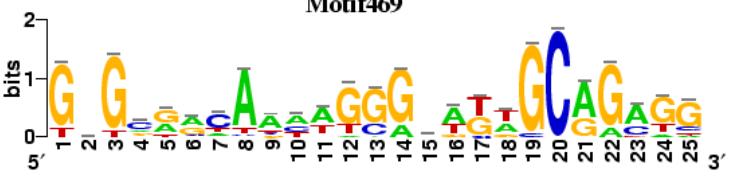
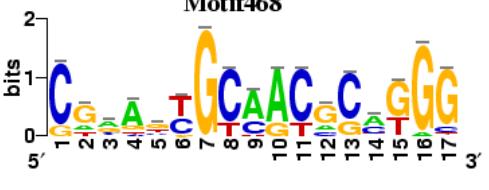
	Motif360				
31					
	Motif385				
31		52.92	0.9	0.040	0.000
	Motif164				
31		24.35	0.75	0.240	0.058
	Motif97				
31		20.57	0.85	0.060	0.003
	Motif370				
32		454.21	0.75	0.273	0.002
	Motif363				
32		295.34	0.85	0.250	0.004
	Motif365				
32		280.44	0.75	0.250	0.005
	Motif371				
32		206.26	0.75	0.182	0.003
		204.40	0.7	0.227	0.006

		<b>Motif361</b>				
		<b>Motif387</b>			672.21	0.8 0.317 0.001
		<b>Motif383</b>			590.05	0.8 0.244 0.000
33						
		<b>Motif376</b>			526.84	0.8 0.366 0.004
		<b>Motif382</b>			489.95	0.75 0.317 0.003
		<b>Motif375</b>			415.95	0.55 0.341 0.005
		<b>Motif648</b>			63.70	0.95 0.048 0.000
34						
		<b>Motif324</b>			45.09	0.7 0.119 0.007
					40.34	0.8 0.119 0.007

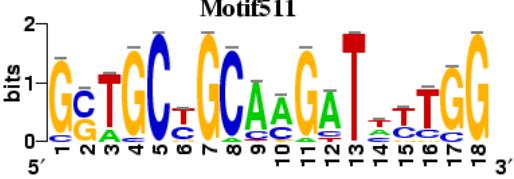
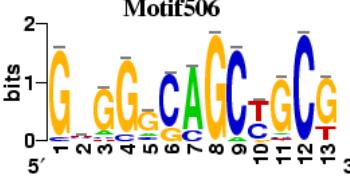
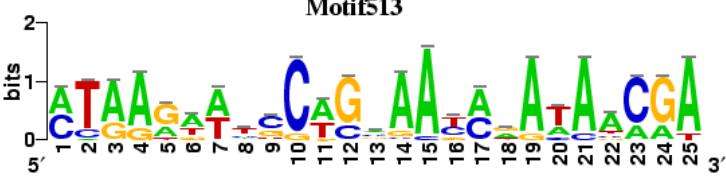
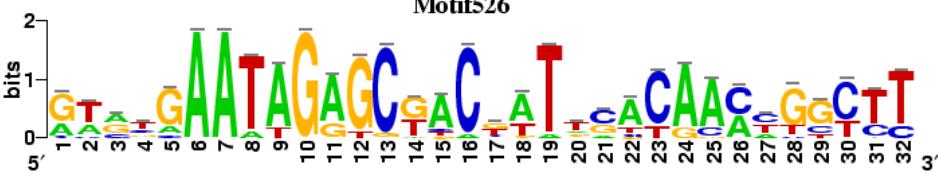
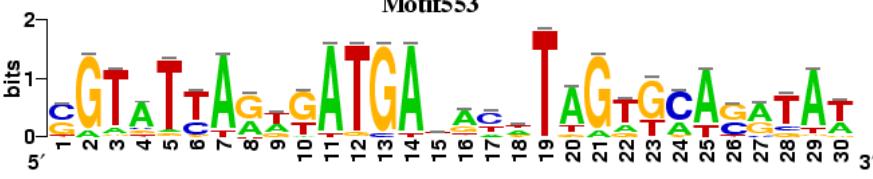
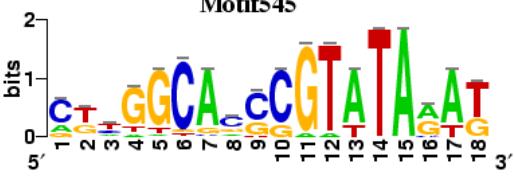
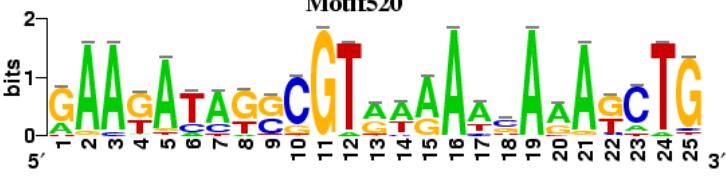
		<b>Motif639</b>				
		<b>Motif340</b>			39.59	0.75 0.167 0.016
		<b>Motif321</b>			30.87	0.9 0.048 0.001
		<b>Motif392</b>			409.87	0.7 0.293 0.004
		<b>Motif394</b>			401.21	0.75 0.317 0.005
35		<b>Motif400</b>			388.43	0.65 0.293 0.004
		<b>Motif396</b>			298.09	0.65 0.390 0.013
		<b>Motif399</b>			287.07	0.75 0.244 0.004
					224.63	0.55 0.231 0.005

	Motif402			
36	Motif404	196.99	0.75	0.256
				0.007
	Motif401	184.23	0.8	0.333
				0.015
	Motif403	124.71	0.7	0.282
				0.016
	Motif101	68.95	0.95	0.051
				0.000
37	Motif407	549.56	0.7	0.364
				0.003
	Motif412	487.30	0.55	0.394
				0.005
	Motif414	471.54	0.6	0.424
				0.007
		471.54	0.7	0.424
				0.007

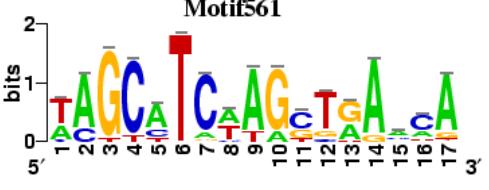
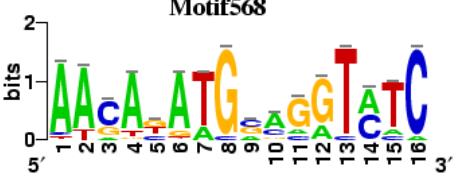
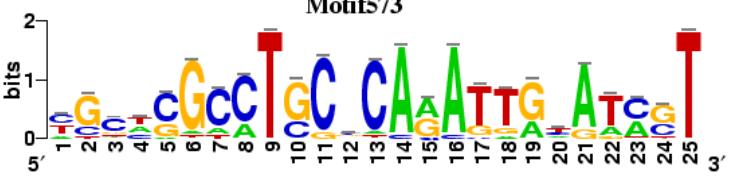
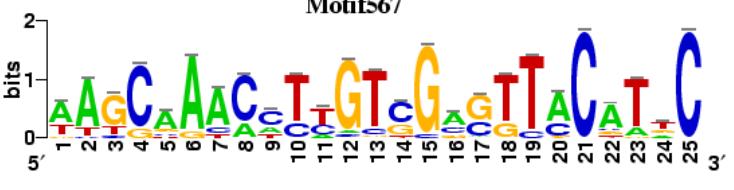
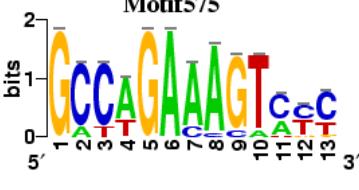
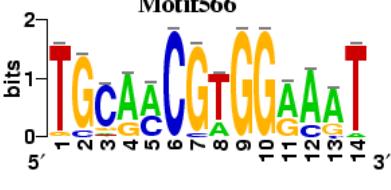
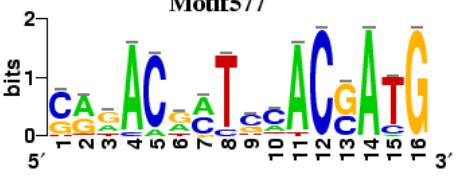
38	Motif417			
	Motif411		425.63	0.65 0.455 0.009
	Motif429		897.37	0.7 0.606 0.006
	Motif420		791.33	0.75 0.394 0.002
	Motif428		772.30	0.7 0.424 0.002
	Motif418		767.91	0.65 0.364 0.001
	Motif432		620.52	0.6 0.364 0.002
	Motif437		148.20	0.75 0.176 0.004
			144.24	0.75 0.206 0.005

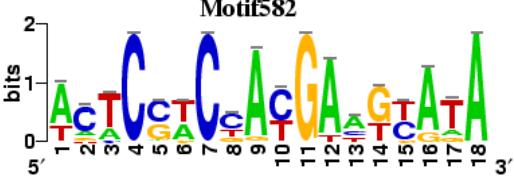
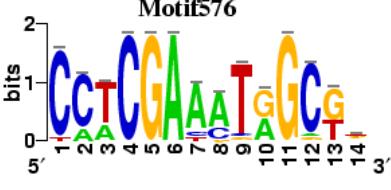
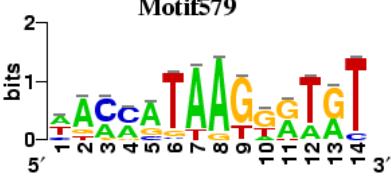
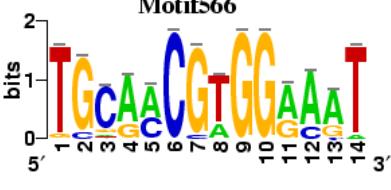
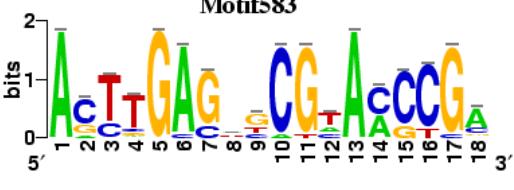
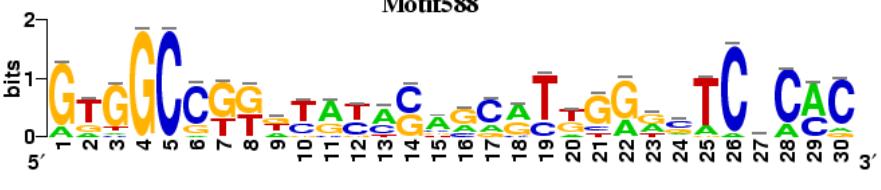
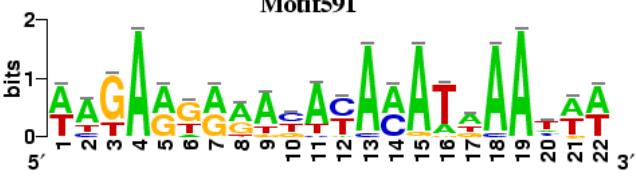
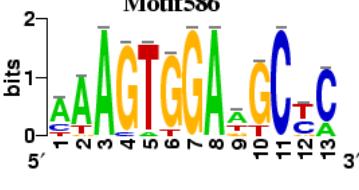
39	Motif436 	136.96	0.7	0.176	0.004
	Motif438 				
	Motif120 	38.96	0.95	0.059	0.001
	Motif413 	38.96	0.95	0.059	0.001
	Motif461 	664.32	0.7	0.387	0.002
	Motif471 	593.66	0.75	0.323	0.002
40	Motif469 	546.82	0.75	0.323	0.002
	Motif468 	511.02	0.8	0.290	0.002
		484.56	0.65	0.355	0.004

		Motif470					
41							
		Motif480				883.57	0.7 0.414 0.001
		Motif485				714.60	0.75 0.414 0.002
		Motif474				588.20	0.65 0.345 0.002
42		Motif488				588.20	0.7 0.345 0.002
		Motif476				549.63	0.8 0.310 0.002
42	NA					NA	NA NA NA
		Motif509				510.99	0.65 0.350 0.002
		Motif508				508.24	0.85 0.300 0.001

			Motif511		461.46	0.8	0.400	0.004
43			Motif506		393.39	0.8	0.300	0.002
			Motif513		390.76	0.75	0.350	0.003
			Motif516		1897.91	0.55	0.800	0.001
			Motif526		1897.91	0.5	0.800	0.001
44			Motif553		1897.91	0.65	0.800	0.001
			Motif545		1834.63	0.7	0.850	0.002
			Motif520		1791.50	0.5	0.800	0.002
					969.17	0.7	0.800	0.007

	Motif556			
	697.84	0.9	0.400	0.002
45	Motif557			
	313.84	0.6	0.700	0.024
	Motif555			
	227.92	0.85	0.600	0.024
	Motif554			
	162.07	0.75	0.550	0.028
	Motif_MCM1			
	766.15	0.75	0.765	0.008
46	Motif560			
	485.77	0.8	0.706	0.012
	Motif559			
	485.77	0.75	0.706	0.012
	Motif562			
	384.90	0.75	0.235	0.001

47	Motif561			
	Motif563		282.36	0.7 0.471 0.009
	Motif568		1370.59	0.8 0.833 0.004
	Motif573		1359.23	0.65 0.778 0.003
	Motif567		1293.77	0.75 0.778 0.003
	Motif575		1179.92	0.75 0.778 0.004
	Motif566		1100.53	0.9 0.722 0.004
	Motif577		935.62	0.8 0.900 0.006
			935.62	0.75 0.900 0.006

48	Motif582 			
	Motif576 	894.59	0.75	0.900
	Motif579 	856.98	0.85	0.900
	Motif566 	770.99	0.95	0.700
	Motif583 	976.36	0.65	0.462
	Motif588 	938.18	0.6	0.385
49	Motif591 	841.51	0.8	0.538
	Motif586 	725.13	0.7	0.769
		558.10	0.75	0.538
				0.004

