

Jump to: [Multiple Alignment](#) [Motif Tree](#) [Motif Matching](#)

Input file: [100 motifs loaded](#)

Settings: Metric=PCC, Alignment=SWU, Gap-open=1000, Gap-extend=1000, -nooverlapalign

Multiple Alignment=IR, Tree=UPGMA, Matching against: user-defined

Note: All results files are removed nightly at midnight EST. Please save your results by saving "Webpage, complete".

[Download results as a PDF](#)

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## Multiple Alignment

(Consensus sequence representations shown, but multiple alignment was carried out on the matrices)

```

0:  -----AAAAAAA-----
1:  -----AGAGGGCA-----
2:  -----AGGKGGCA-----
3:  -----CAGNAGAG-----
4:  -----CCACNAGG-----
5:  -----CCAGCAGG-----
6:  -----CNCCCYNK-----
7:  -----CAGRGGGC-----
8:  -----CYAGGGGGMG-----
9:  -----GCCACNNNGTGGC-----
10: -----NGCAGAGGNA-----
11: -----CCASCAGA-----
12: -----GGNGGCAG-----
13: -----GAKGGCAG-----
14: -----GCCAYCTA-----
15: -----GCCACYAG-----
16: -----GAGGGCGC-----
17: -----CASCAGGG-----
18: -----GCAGGNNG-----
19: -----GGCAGCAG-----
20: -----CGCCACCT-----
21: -----CCYCTAGT-----
22: -----CCAGANGG-----

```

# Stamp Results

11/21/15

```

23: -----TTTWTAAA-----
24: -----GGCCANNNGAGGG--
25: -----CCAGCNNAGGGC--
26: --CCTCTNNNGGCCA-----
27: -----AGMGCSCC-----
28: -----GCCACNNNAGGGC--
29: -----AGCAGNTG-----
30: -----CACACACA-----
31: -----GGGGSAGC-----
32: -----CAGNGCCC-----
33: GGCCANNNNNNNGGCAG-----
34: -----SAGGGCAG-----
35: -----AGCWGCAG-----
36: -----CCCWGCAG-----
37: -----AGCGCCCC-----
38: -----GTGGCCAC-----
39: -----CNCTGCAGG-----
40: -----CCATCTAGTG-----
41: -----CCCCCCCC-----
42: -----GGCASTGT-----
43: -----GGCCANNNNNGGGGC--
44: -----AGCAGNNNNNNCTG--
45: -----GCAGAGCWG-----
46: -----CACCWGGT-----
47: -----CAGNGCTG-----
48: -----AGCAGNNNNNCAGCA--
49: -----CAGAGCAGAGCA-----
50: -----CCWGGAGG-----
51: -----CAGSCAGCCA-----
52: -----CASAAGAG-----
53: -----GNAGGCAGAR-----
54: -----CWGGCCAGAR-----
55: -----CAGGNAGG-----
56: -----CAGCWGCC-----
57: -----GRGGGAGCWG-----
58: -----GCAGAGAG-----
59: -----AGAGRGAG-----
60: -----GCCACAGCCACA-----
61: -----GCAGCCTC-----
62: -----CAGCNCCA-----
63: GCCCTNNNNNGGCCA-----
64: -----AAAGGAAGGA-----
65: -----GCAGCCASC-----

```

## Stamp Results

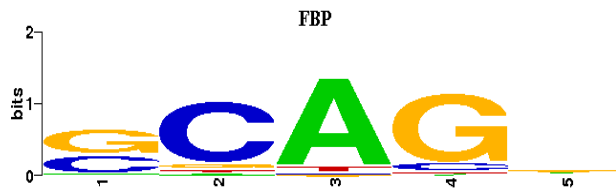
11/21/15

```

66: -----ACWGCAGG-----
67: -----AGCCNCAG-----
68: -----CAGGAGGAGG--
69: -----RGGGCAGTR-----
70: -----AGAGGCAGAGGC-----
71: -----AAAGRAAA-----
72: -----AGNAGCTG-----
73: -----GGCWGGAG-----
74: -----GNAGCCAGC-----
75: -----CCWGGCTG-----
76: -----CTNCCCAG-----
77: -----CCASAAGG-----
78: -----CCACTAGAG-----
79: -----AGGCAGGAAG-----
80: -----CCAGAGCCAGAG-----
81: -----CCTCYAGG-----
82: -----TTCYCCAG-----
83: -----CYAGAGGCWG-----
84: -----SAGAGAGAA-----
85: -----CAGCWGTG-----
86: -----CWGGGCAGNG-----
87: -----GGAGGNAG-----
88: -----CCTSTAGG-----
89: -----ACNAGAGG-----
90: -----AGCCAGGCAG-----
91: -----TGCWGGTG-----
92: -----CAGGANAG-----
93: -----CCCWGTGG-----
94: -----RRRRRRRR-----
95: -----CACCACCAGC-----
96: -----SNRGAGAG-----
97: -----RGGGGGRG-----
98: -----YTCTTCCCWG-----
99: -----CARGAGGG-----

```

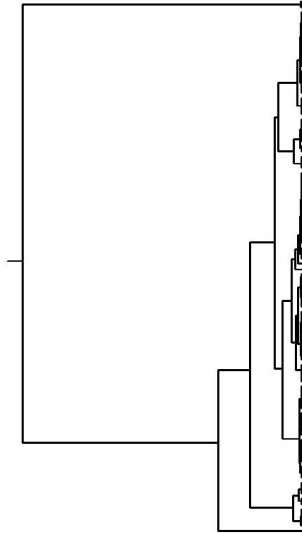
**Familial Profile:**  
(click for matrix)



# Motif Tree

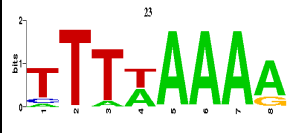
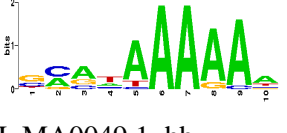
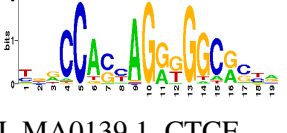
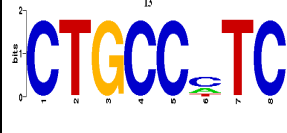
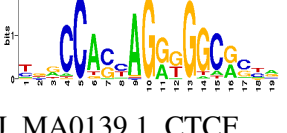
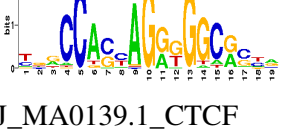
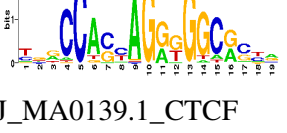
Tree (drawn by **Phylip**)

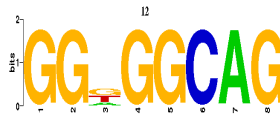
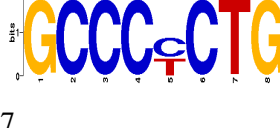
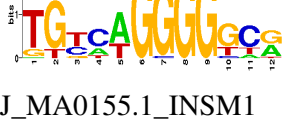
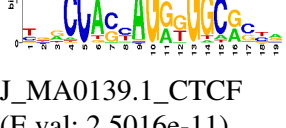
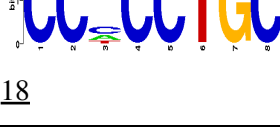
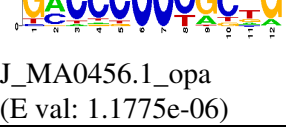
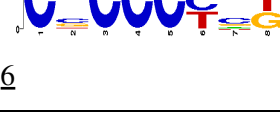
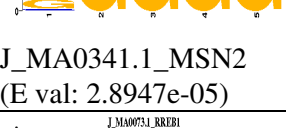
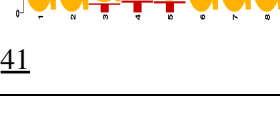
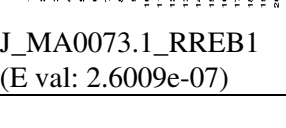
[Click here for Newick-format tree \(viewable with MEGA\)](#)

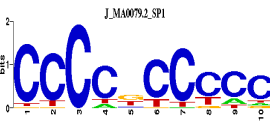
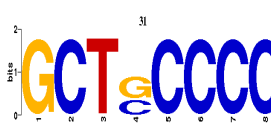
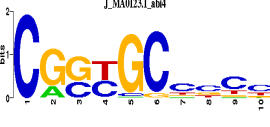
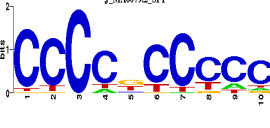
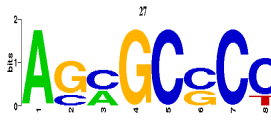
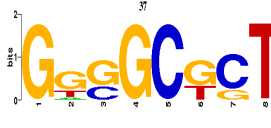
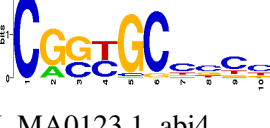
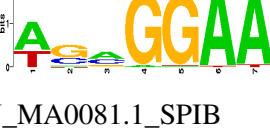


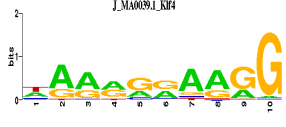
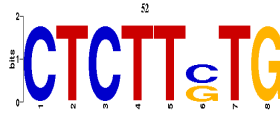
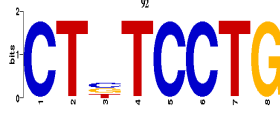
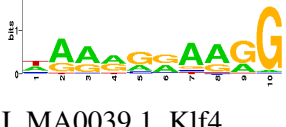
Input Motif

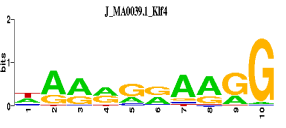
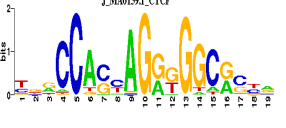
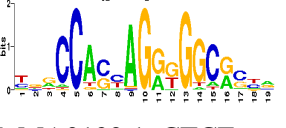
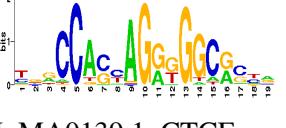
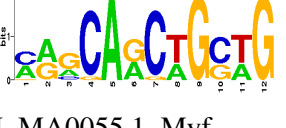
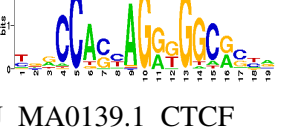
Best match in  
user-defined

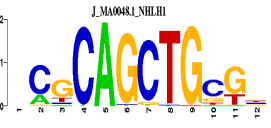
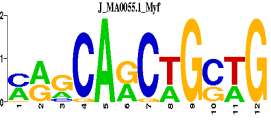
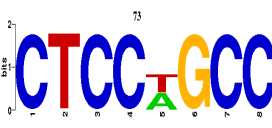
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| <br><b>0</b>    | <br><b>J_MA0277.1_AZF1</b><br>(E val: 1.2989e-07)        |
| <br><b>23</b>   | <br><b>J_MA0049.1_hb</b><br>(E val: 2.2291e-04)          |
| <br><b>1</b>    | <br><b>J_MA0139.1_CTCF</b><br>(E val: 3.0274e-05)        |
| <br><b>13</b> | <br><b>J_MA0139.1_CTCF</b><br>(E val: 6.8804e-04)      |
| <br><b>34</b> | <br><b>J_MA0065.2_PPARG_RXR</b><br>(E val: 6.8216e-04) |
| <br><b>16</b> | <br><b>J_MA0139.1_CTCF</b><br>(E val: 2.3130e-06)      |
| <br><b>2</b>  | <br><b>J_MA0139.1_CTCF</b><br>(E val: 1.3187e-07)      |
|                                                                                                   |                                                                                                                                             |

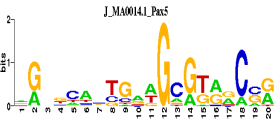
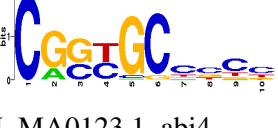
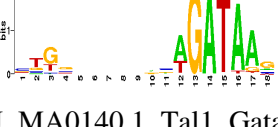
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|  <p><u>12</u></p>   |  <p>J_MA0373.1_RPN4<br/>(E val: 4.3681e-06)</p>    |
|  <p><u>14</u></p>   |  <p>J_MA0373.1_RPN4<br/>(E val: 1.1548e-06)</p>    |
|  <p><u>20</u></p>   |  <p>J_MA0373.1_RPN4<br/>(E val: 1.1217e-10)</p>    |
|  <p><u>7</u></p>    |  <p>J_MA0155.1_INSM1<br/>(E val: 3.3320e-09)</p>   |
|  <p><u>8</u></p>  |  <p>J_MA0139.1_CTCF<br/>(E val: 2.5016e-11)</p>  |
|  <p><u>18</u></p> |  <p>J_MA0456.1_opa<br/>(E val: 1.1775e-06)</p>   |
|  <p><u>6</u></p>  |  <p>J_MA0341.1_MSN2<br/>(E val: 2.8947e-05)</p>  |
|  <p><u>41</u></p> |  <p>J_MA0073.1_RREB1<br/>(E val: 2.6009e-07)</p> |
|                                                                                                       |                                                                                                                                       |

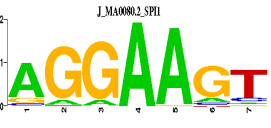
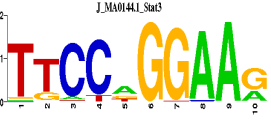
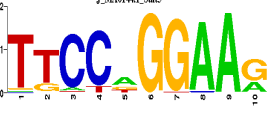
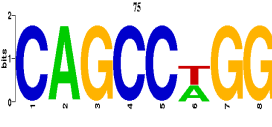
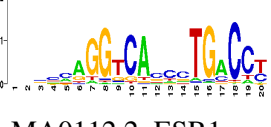
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|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|  <p><u>97</u></p>   |  <p>J_MA0079.2_SP1<br/>(E val: 4.2842e-06)</p>    |
|  <p><u>31</u></p>   |  <p>J_MA0123.1_abi4<br/>(E val: 2.3258e-07)</p>   |
|  <p><u>57</u></p>   |  <p>J_MA0079.2_SP1<br/>(E val: 1.8292e-04)</p>    |
|  <p><u>27</u></p>   |  <p>J_MA0123.1_abi4<br/>(E val: 1.3097e-04)</p>   |
|  <p><u>37</u></p>  |  <p>J_MA0123.1_abi4<br/>(E val: 1.2894e-04)</p>  |
|  <p><u>32</u></p> |  <p>J_MA0123.1_abi4<br/>(E val: 1.0802e-06)</p> |
|  <p><u>62</u></p> |  <p>J_MA0213.1_brk<br/>(E val: 4.8140e-07)</p>  |
|  <p><u>10</u></p> |  <p>J_MA0081.1_SPIB<br/>(E val: 1.9586e-05)</p> |
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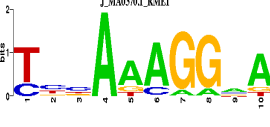
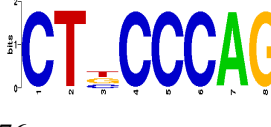
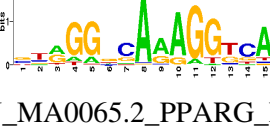
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|  <p><b>58</b></p>   |  <p>J_MA0354.1_PDR8<br/>(E val: 3.1718e-03)</p>   |
|  <p><b>59</b></p>   |  <p>J_MA0039.1_Klf4<br/>(E val: 4.7915e-04)</p>   |
|  <p><b>84</b></p>   |  <p>J_MA0050.1_IRF1<br/>(E val: 6.0607e-04)</p>   |
|  <p><b>96</b></p>   |  <p>J_MA0062.1_GABPA<br/>(E val: 7.2684e-04)</p>  |
|  <p><b>52</b></p>  |  <p>J_MA0062.1_GABPA<br/>(E val: 8.9325e-06)</p> |
|  <p><b>92</b></p> |  <p>J_MA0156.1_FEV<br/>(E val: 8.7005e-06)</p>  |
|  <p><b>64</b></p> |  <p>J_MA0039.1_Klf4<br/>(E val: 4.0653e-11)</p> |
|  <p><b>71</b></p> |  <p>J_MA0277.1_AZF1<br/>(E val: 1.7901e-10)</p> |
|                                                                                                       |                                                                                                                                      |

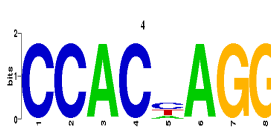
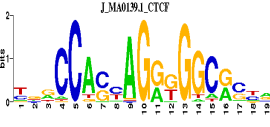
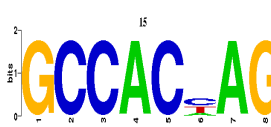
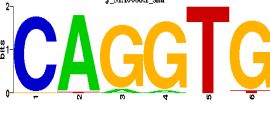
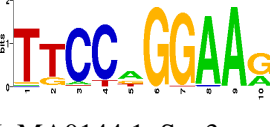
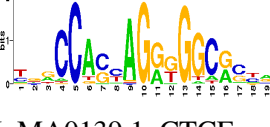
|                                                                                                |                                                                                                              |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
|  <p>94</p>   |  <p>J_MA0039.1_Klf4</p>   |
| <p>94</p>                                                                                      | <p>J_MA0039.1_Klf4<br/>(E val: 2.2953e-07)</p>                                                               |
|  <p>3</p>    |  <p>J_MA0287.1_CUP2</p>   |
| <p>3</p>                                                                                       | <p>J_MA0287.1_CUP2<br/>(E val: 2.1430e-06)</p>                                                               |
|  <p>11</p>   |  <p>J_MA0139.1_CTCF</p>   |
| <p>11</p>                                                                                      | <p>J_MA0139.1_CTCF<br/>(E val: 1.2716e-06)</p>                                                               |
|  <p>17</p>   |  <p>J_MA0139.1_CTCF</p>   |
| <p>17</p>                                                                                      | <p>J_MA0139.1_CTCF<br/>(E val: 5.3545e-08)</p>                                                               |
|  <p>5</p>   |  <p>J_MA0139.1_CTCF</p>  |
| <p>5</p>                                                                                       | <p>J_MA0139.1_CTCF<br/>(E val: 3.5630e-06)</p>                                                               |
|  <p>66</p> |  <p>J_MA0055.1_Myf</p>  |
| <p>66</p>                                                                                      | <p>J_MA0055.1_Myf<br/>(E val: 4.4945e-04)</p>                                                                |
|  <p>36</p> |  <p>J_MA0402.1_SWI5</p> |
| <p>36</p>                                                                                      | <p>J_MA0402.1_SWI5<br/>(E val: 3.3438e-05)</p>                                                               |
|  <p>39</p> |  <p>J_MA0139.1_CTCF</p> |
| <p>39</p>                                                                                      | <p>J_MA0139.1_CTCF<br/>(E val: 3.3448e-04)</p>                                                               |
|                                                                                                |                                                                                                              |

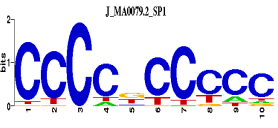
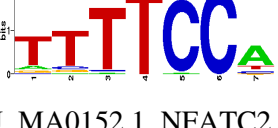
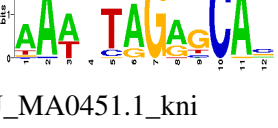
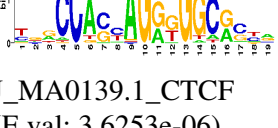
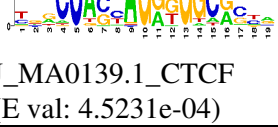
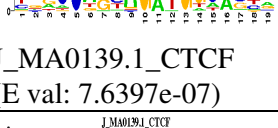
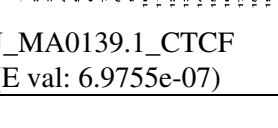
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|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>85</b></p>   |  <p>J_MA0048.1_NHLH1<br/>(E val: 2.3866e-05)</p>  |
|  <p><b>19</b></p>   |  <p>J_MA0055.1_Myf<br/>(E val: 1.5331e-05)</p>    |
|  <p><b>35</b></p>   |  <p>J_MA0055.1_Myf<br/>(E val: 3.8072e-07)</p>    |
|  <p><b>56</b></p>   |  <p>J_MA0048.1_NHLH1<br/>(E val: 2.9034e-06)</p>  |
|  <p><b>73</b></p>  |  <p>J_MA0410.1_UGA3<br/>(E val: 1.4647e-04)</p>  |
|  <p><b>29</b></p> |  <p>J_MA0086.1_sna<br/>(E val: 4.2550e-08)</p>  |
|  <p><b>72</b></p> |  <p>J_MA0055.1_Myf<br/>(E val: 1.0230e-06)</p>  |
|  <p><b>45</b></p> |  <p>J_MA0287.1_CUP2<br/>(E val: 1.3251e-03)</p> |
|                                                                                                       |                                                                                                                                      |

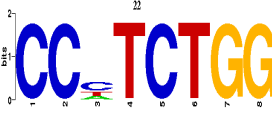
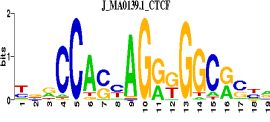
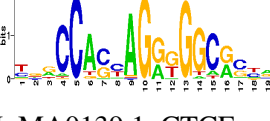
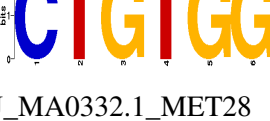
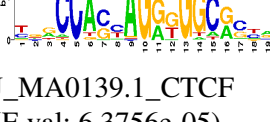
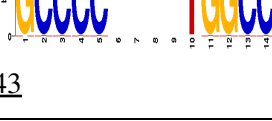
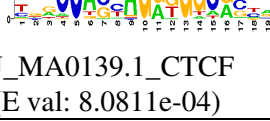
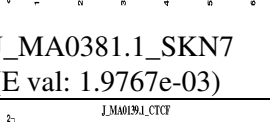
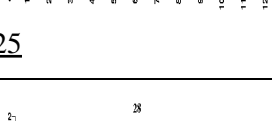
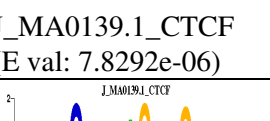
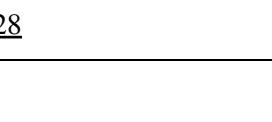
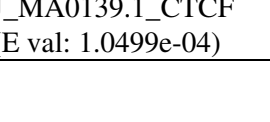
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|  <p>47</p>   |  <p>J_MA0014.1_Pax5<br/>(E val: 1.4187e-03)</p>        |
|  <p>49</p>   |  <p>J_MA0451.1_kni<br/>(E val: 9.4102e-05)</p>         |
|  <p>48</p>   |  <p>J_MA0402.1_SWI5<br/>(E val: 1.2273e-02)</p>        |
|  <p>44</p>   |  <p>J_MA0417.1_YAP5<br/>(E val: 1.0997e-01)</p>        |
|  <p>42</p>  |  <p>J_MA0079.1_SP1<br/>(E val: 2.0867e-04)</p>        |
|  <p>69</p> |  <p>J_MA0123.1_abi4<br/>(E val: 5.6266e-06)</p>      |
|  <p>53</p> |  <p>J_MA0140.1_Tal1_Gata<br/>(E val: 2.4291e-04)</p> |
|  <p>70</p> |  <p>J_MA0065.2_PPARG_RXR<br/>(E val: 9.5999e-05)</p> |
|                                                                                                |                                                                                                                                           |

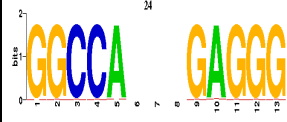
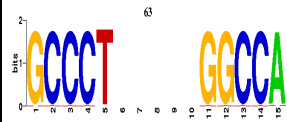
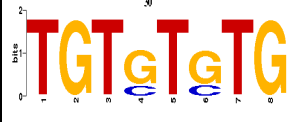
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| <br>87   | <br>J_MA0080.2_SPI1<br>(E val: 6.2578e-05)      |
| <br>55   | <br>J_MA0144.1_Stat3<br>(E val: 7.0865e-06)     |
| <br>79   | <br>J_MA0149.1_EWSR1-FLI<br>(E val: 8.3572e-12) |
| <br>51   | <br>J_MA0304.1_GCR1<br>(E val: 4.6869e-04)      |
| <br>90  | <br>J_MA0144.1_Stat3<br>(E val: 4.0504e-05)    |
| <br>65 | <br>J_MA0373.1_RPN4<br>(E val: 3.6182e-05)    |
| <br>74 | <br>J_MA0267.1_ACE2<br>(E val: 3.9729e-04)    |
| <br>75 | <br>J_MA0112.2_ESR1<br>(E val: 3.0597e-03)    |
|                                                                                            |                                                                                                                                    |

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|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>80</b></p>   |  <p>J_MA0213.1_brk<br/>(E val: 6.5288e-04)</p>         |
|  <p><b>83</b></p>   |  <p>J_MA0370.1_RME1<br/>(E val: 3.7396e-04)</p>        |
|  <p><b>60</b></p>   |  <p>J_MA0332.1_MET28<br/>(E val: 8.4396e-08)</p>       |
|  <p><b>67</b></p>   |  <p>J_MA0332.1_MET28<br/>(E val: 3.0568e-07)</p>       |
|  <p><b>61</b></p> |  <p>J_MA0048.1_NHLH1<br/>(E val: 1.4849e-03)</p>     |
|  <p><b>54</b></p> |  <p>J_MA0381.1_SKN7<br/>(E val: 4.2788e-04)</p>      |
|  <p><b>76</b></p> |  <p>J_MA0080.1_SPI1<br/>(E val: 1.1411e-03)</p>      |
|  <p><b>86</b></p> |  <p>J_MA0065.2_PPARG_RXR<br/>(E val: 1.9400e-04)</p> |
|                                                                                                       |                                                                                                                                           |

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|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
|  <p>98</p>   |  <p>J_MA0062.1_GABPA<br/>(E val: 1.0157e-04)</p>   |
|  <p>4</p>    |  <p>J_MA0139.1_CTCF<br/>(E val: 4.8229e-09)</p>    |
|  <p>15</p>   |  <p>J_MA0373.1_RPN4<br/>(E val: 6.1835e-07)</p>    |
|  <p>95</p>   |  <p>J_MA0402.1_SWI5<br/>(E val: 2.5095e-05)</p>    |
|  <p>46</p>  |  <p>J_MA0086.1_sna<br/>(E val: 2.0423e-07)</p>    |
|  <p>91</p> |  <p>J_MA0402.1_SWI5<br/>(E val: 3.9167e-08)</p>  |
|  <p>50</p> |  <p>J_MA0144.1_Stat3<br/>(E val: 2.8908e-06)</p> |
|  <p>81</p> |  <p>J_MA0139.1_CTCF<br/>(E val: 3.6310e-05)</p>  |
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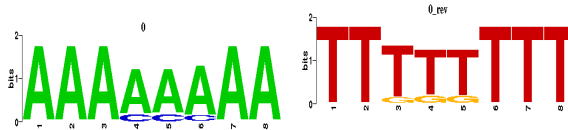
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|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>68</b></p>   |  <p>J_MA0079.2_SP1<br/>(E val: 5.9438e-05)</p>    |
|  <p><b>99</b></p>   |  <p>J_MA0163.1_PLAG1<br/>(E val: 1.2706e-04)</p>  |
|  <p><b>82</b></p>   |  <p>J_MA0152.1_NFATC2<br/>(E val: 2.1635e-05)</p> |
|  <p><b>21</b></p>   |  <p>J_MA0451.1_kni<br/>(E val: 5.6863e-07)</p>    |
|  <p><b>89</b></p> |  <p>J_MA0139.1_CTCF<br/>(E val: 3.6253e-06)</p> |
|  <p><b>88</b></p> |  <p>J_MA0139.1_CTCF<br/>(E val: 4.5231e-04)</p> |
|  <p><b>40</b></p> |  <p>J_MA0139.1_CTCF<br/>(E val: 7.6397e-07)</p> |
|  <p><b>78</b></p> |  <p>J_MA0139.1_CTCF<br/>(E val: 6.9755e-07)</p> |
|                                                                                                       |                                                                                                                                      |

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|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|  <p><u>22</u></p>   |  <p>J_MA0139.1_CTCF<br/>(E val: 5.6902e-06)</p>   |
|  <p><u>77</u></p>   |  <p>J_MA0139.1_CTCF<br/>(E val: 3.1811e-05)</p>   |
|  <p><u>93</u></p>   |  <p>J_MA0332.1_MET28<br/>(E val: 4.1004e-07)</p>  |
|  <p><u>9</u></p>    |  <p>J_MA0139.1_CTCF<br/>(E val: 6.3756e-05)</p>   |
|  <p><u>43</u></p> |  <p>J_MA0139.1_CTCF<br/>(E val: 8.0811e-04)</p> |
|  <p><u>33</u></p> |  <p>J_MA0381.1_SKN7<br/>(E val: 1.9767e-03)</p> |
|  <p><u>25</u></p> |  <p>J_MA0139.1_CTCF<br/>(E val: 7.8292e-06)</p> |
|  <p><u>28</u></p> |  <p>J_MA0139.1_CTCF<br/>(E val: 1.0499e-04)</p> |
|                                                                                                       |                                                                                                                                      |

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|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>24</b></p>   |  <p>J_MA0381.1_SKN7<br/>(E val: 1.1558e-03)</p> |
|  <p><b>26</b></p>   |  <p>J_MA0381.1_SKN7<br/>(E val: 1.1558e-03)</p> |
|  <p><b>63</b></p>   |  <p>J_MA0381.1_SKN7<br/>(E val: 1.8510e-03)</p> |
|  <p><b>38</b></p>   |  <p>J_MA0381.1_SKN7<br/>(E val: 1.3090e-04)</p> |
|  <p><b>30</b></p> |  <p>J_MA0009.1_T<br/>(E val: 1.7876e-03)</p>  |

## Motif Similarity Matches

0

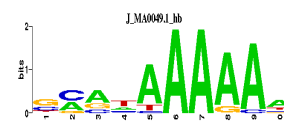
*forward**reverse compliment**Name**E value**Alignment**Motif*

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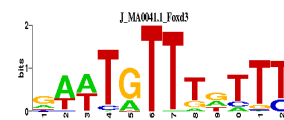
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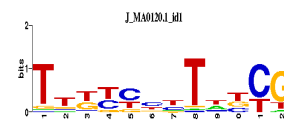
J\_MA0049.1\_hb 3.3359e-06

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NTTTTTNYKS

J\_MA0041.1\_Foxd3 3.6057e-05

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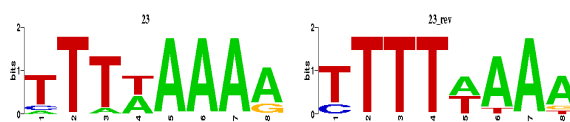
J\_MA0120.1\_id1 5.2538e-04

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J\_MA0010.1\_br\_Z1 7.4820e-04

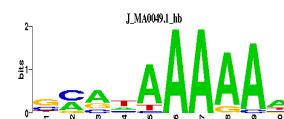
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23

*forward**reverse complement**Name**E value**Alignment**Motif*

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2.2291e-04

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J\_MA0151.1\_ARID3A 7.0221e-04

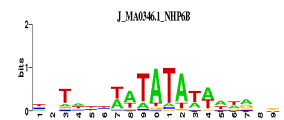
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J\_MA0448.1\_H2.0

1.2146e-03

TTTWTAAA  
TNATWAN-

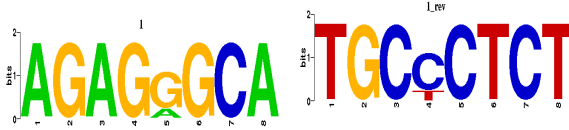
J\_MA0346.1\_NHP6B 2.7244e-03

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J\_MA0173.1\_CG11617 3.3666e-03

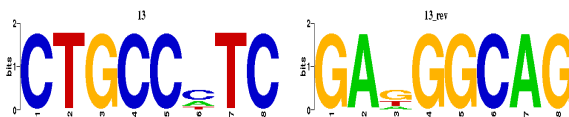
-TTTWTAAA  
AIGTWAA--

1

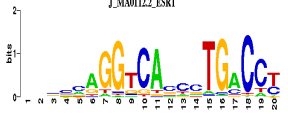
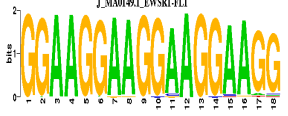
*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|----------------------|----------------|-----------------------------------------|--------------|
| J_MA0139.1_CTCF      | 3.0274e-05     | -----AGAGGGCA---<br>YNNCCASYAGGKGGCRSNN |              |
| J_MA0065.2_PPARG_RXR | 3.6966e-05     | -----AGAGGGCA<br>NNRGGNCAAAGGKCA        |              |
| J_MA0159.1_RXR_RAR_D | 3.8927e-05     | TGCCCTCT-----<br>TGACCTNYNNNTGAMCY      |              |
| J_MA0155.1_INSM1     | 1.2061e-04     | TGCCCTCT----<br>YCCCCCTGRCA             |              |
| J_MA0451.1_kni       | 1.4564e-03     | ---AGAGGGCA-<br>AAANTAGAGCAN            |              |

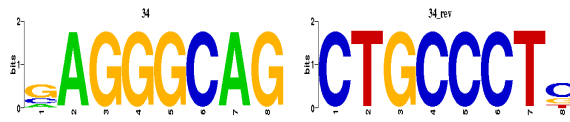
13

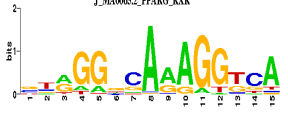
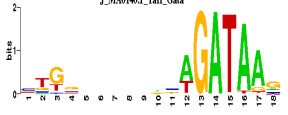
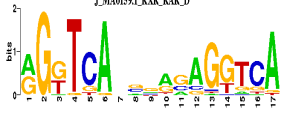
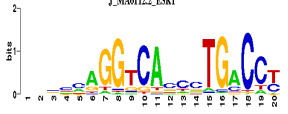
*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                       | <i>Motif</i> |
|----------------------|----------------|----------------------------------------|--------------|
| J_MA0139.1_CTCF      | 6.8804e-04     | --CTGCCMTC-----<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0065.2_PPARG_RXR | 9.9603e-04     | -GAKGGCAG-----<br>NNRGGNCAAAGGKCA      |              |

|                      |            |                                          |                                                                                     |
|----------------------|------------|------------------------------------------|-------------------------------------------------------------------------------------|
| J_MA0112.2_ESR1      | 1.9737e-03 | GAKGGCAG-----<br>-RGGTCANNNTGACCTNNNNN   |  |
| J_MA0405.1_TEA1      | 2.4467e-03 | GAKGGCAG<br>GCGSRCWN                     |  |
| J_MA0149.1_EWSR1-FLI | 2.6140e-03 | -----CTGCCMTC-----<br>CCTTCCTTCCTTCCTTCC |  |

34

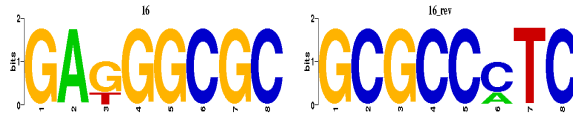
*forward**reverse compliment*

| Name                 | E value    | Alignment                                 | Motif                                                                                 |
|----------------------|------------|-------------------------------------------|---------------------------------------------------------------------------------------|
| J_MA0065.2_PPARG_RXR | 6.8216e-04 | -----CTGCCCTS-<br>TGMCCTTGNCCYNN          |  |
| J_MA0140.1_Tal1_Gata | 1.1368e-03 | -----CTGCCCTS-----<br>NTTATCTNNNNNNNNNCNN |  |
| J_MA0159.1_RXR_RAR_D | 1.2760e-03 | CTGCCCTS-----<br>-TGACCTNYNNNTGAMCY       |  |
| J_MA0112.2_ESR1      | 1.5073e-03 | SAGGGCAG-----<br>-RGGTCANNNTGACCTNNNNN    |  |
| J_MA0366.1_RGM1      | 1.7687e-03 | CTGCCCTS<br>--CCCCT-                      |  |

16

# Stamp Results

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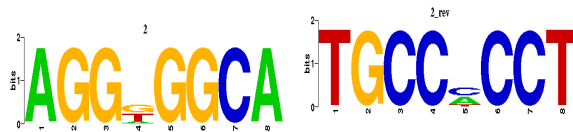


*forward*

*reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                       | <i>Motif</i> |
|-----------------|----------------|----------------------------------------|--------------|
| J_MA0139.1_CTCF | 2.3130e-06     | -----GAGGGCGC--<br>YNNCCASYAGGKGGCRSNN |              |
| J_MA0443.1_btd  | 2.7325e-04     | -GCGCCCTC-<br>YCCGCCCMCN               |              |
| J_MA0373.1_RPN4 | 5.3559e-04     | GCGCCCTC<br>-CGCCACC                   |              |
| J_MA0213.1_brk  | 6.5882e-04     | -GCGCCCTC<br>RGCGCCRS-                 |              |
| J_MA0162.1_Egr1 | 8.5261e-04     | GCGCCCTC---<br>MCGCCCACGCN             |              |

2



*forward*

*reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|------------------|----------------|-----------------------------------------|--------------|
| J_MA0139.1_CTCF  | 1.3187e-07     | -----AGGKGGCA---<br>YNNCCASYAGGKGGCRSNN |              |
| J_MA0155.1_INSM1 | 1.7220e-07     | ----AGGKGGCA<br>TGycAGGGGGCR            |              |

J\_MA0373.1\_RPN4 4.4957e-06

TGCCMCCT  
CGCCACC-

J\_MA0366.1\_RGM1 3.7075e-05

TGCCMCCT  
---CCCCT

J\_MA0342.1\_MSN4 3.8819e-05

TGCCMCCT  
---CCCCT

12

*forward**reverse compliment**Name**E value**Alignment**Motif*

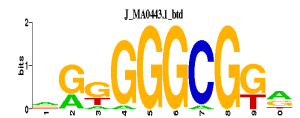
J\_MA0373.1\_RPN4

4.3681e-06

CTGCCNCC  
-CGCCACC

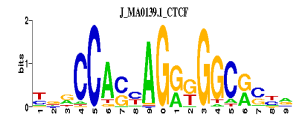
J\_MA0443.1\_btd

3.0930e-05

-GGNGGCAG-  
NGKGGGCGGR

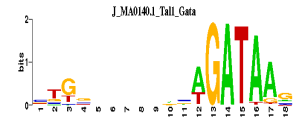
J\_MA0139.1\_CTCF

3.2912e-05

--CTGCCNCC-----  
NNSYGCCMCCTRSTGGNNR

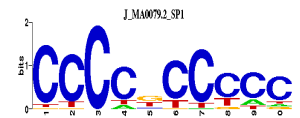
J\_MA0140.1\_Tal1\_Gata

3.4747e-05

-----CTGCCNCC-----  
NTTATCTNNNNNNNNNCNN

J\_MA0079.2\_SP1

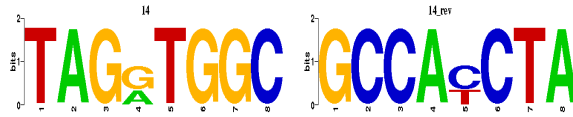
4.8717e-05

GGNGGCAG--  
GGGGGNGGGG

14

# Stamp Results

11/21/15

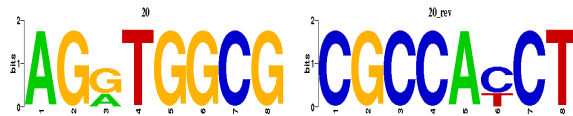


*forward*

*reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|-----------------|----------------|-------------------------------------------|--------------|
| J_MA0373.1_RPN4 | 1.1548e-06     | -GCCAYCTA<br>CGCCACC--                    |              |
| J_MA0139.1_CTCF | 4.8715e-06     | -----TAGRTGGC-----<br>YNNCCASYAGGKGGCRSNN |              |
| J_MA0086.1_sna  | 5.9905e-05     | GCCAYCTA<br>--CACCTG                      |              |
| J_MA0103.1_ZEB1 | 7.9925e-05     | TAGRTGGC<br>NAGGTG--                      |              |
| J_MA0009.1_T    | 8.3554e-05     | -TAGRTGGC--<br>CTAGGTGTGAA                |              |

20



*forward*

*reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|-----------------|----------------|-----------------------------------------|--------------|
| J_MA0373.1_RPN4 | 1.1217e-10     | CGCCACCT<br>CGCCACC-                    |              |
| J_MA0139.1_CTCF | 3.0266e-07     | ---CGCCACCT-----<br>NNSYGCCMCCTRSTGGNNR |              |

# Stamp Results

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J\_MA0333.1\_MET31 1.5440e-05

CGCCACCT-  
CGCCACNNN



J\_MA0086.1\_sna 4.0657e-05

CGCCACCT-  
---CACCTG

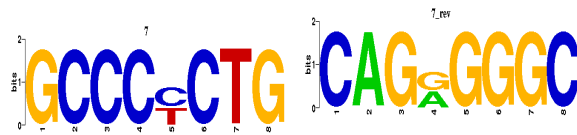


J\_MA0103.1\_ZEB1 5.2493e-05

-AGGTGGCG  
NAGGTG---



7



*forward*

*reverse compliment*

*Name*

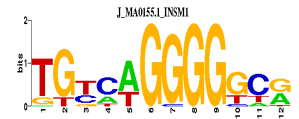
*E value*

*Alignment*

*Motif*

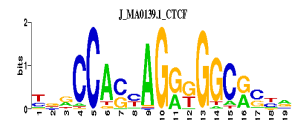
J\_MA0155.1\_INSM1 3.3320e-09

-GCCCYCTG---  
YGCCCCCTGRCA



J\_MA0139.1\_CTCF 8.7556e-09

-----CAGRGGGC-----  
YNNCCASYAGGKGGCRSNN



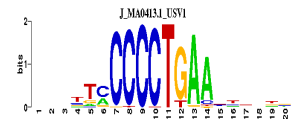
J\_MA0364.1\_REI1 2.3029e-06

GCCCYCTG-  
--CCCCTGN



J\_MA0413.1\_USV1 2.3043e-05

-----CAGRGGGC-----  
NNNNNNTTCAGGGGKANNNN



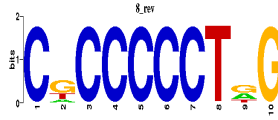
J\_MA0366.1\_RGM1 2.8694e-05

CAGRGGGC  
-AGGGG--



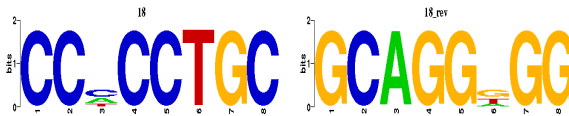
8



*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|------------------|----------------|-------------------------------------------|--------------|
| J_MA0139.1_CTCF  | 2.5016e-11     | ---CKCCCCCTRG-----<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0155.1_INSM1 | 1.4697e-10     | CKCCCCCTRG--<br>YGCCCCCTGRCA              |              |
| J_MA0079.2_SP1   | 3.4756e-06     | CYAGGGGGMG--<br>---GGGGGNGGGG             |              |
| J_MA0443.1_btd   | 4.0366e-06     | --CKCCCCCTRG<br>YCCGCCCMCN--              |              |
| J_MA0366.1_RGM1  | 6.3946e-06     | CKCCCCCTRG<br>---CCCCT--                  |              |

18

*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>             | <i>Motif</i> |
|-----------------|----------------|------------------------------|--------------|
| J_MA0456.1_opa  | 1.1775e-06     | --GCAGGNGG--<br>CNGCGGGGGGKC |              |
| J_MA0364.1_REI1 | 1.2287e-06     | CCNCCTGC<br>-CCCCTGN         |              |

## 11/21/15

*reverse compliment*

*Motif*

J\_MA034L1\_MS2

bits

2

1

0

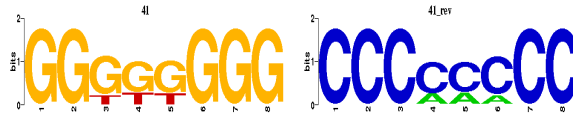
1 2 3 4 5

G G G G G

Sequence logo for J\_MA0456.1\_gpa. The y-axis is labeled 'bits' and ranges from 0 to 2. The x-axis shows positions 1 through 12. The sequence is G A C C C C C G C G. The 'C's at positions 4, 5, 6, and 7 are significantly higher than the others, indicating high conservation.

# Stamp Results

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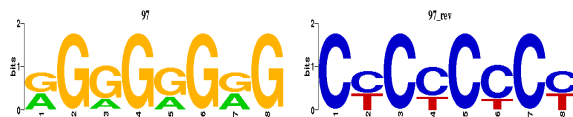


*forward*

*reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                             | <i>Motif</i> |
|------------------|----------------|----------------------------------------------|--------------|
| J_MA0073.1_RREB1 | 2.6009e-07     | -GGGGGGGG-----<br>NGKKKGKGGGTGKTTTGGGG       |              |
| J_MA0068.1_Pax4  | 1.1016e-06     | GGGGGGGG-----<br>GKRNNNNKNNNNNNNNNNKNNWWWTTT |              |
| J_MA0079.2_SP1   | 2.9798e-06     | GGGGGGGG--<br>GGGGNGGGG                      |              |
| J_MA0443.1_btd   | 6.3617e-06     | -CCCCCCCC-<br>YCCGCCMCN                      |              |
| J_MA0039.2_Klf4  | 6.7035e-06     | -CCCCCCCC-<br>GCCMCRCCCN                     |              |

97



*forward*

*reverse compliment*

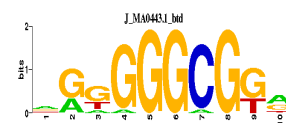
| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                                | <i>Motif</i> |
|-----------------|----------------|-------------------------------------------------|--------------|
| J_MA0079.2_SP1  | 4.2842e-06     | --RGGGGGGRG<br>GGGGNGGGG                        |              |
| J_MA0068.1_Pax4 | 5.8402e-06     | --RGGGGGGRG-----<br>GKRNNNNKNNNNNNNNNNKNNWWWTTT |              |

## Stamp Results

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J\_MA0443.1\_btd 1.8028e-05

—CYCCCCCY—  
YCCGCCCMCN



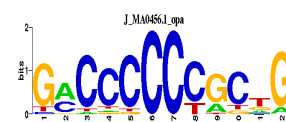
J\_MA0341.1\_MSN2 2.6444e-05

CYCCCCCY  
---CCCCT

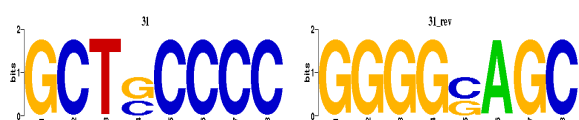


J\_MA0456.1\_opa 8.8490e-05

---RGGGGGRG—  
CNGCGGGGGGKC



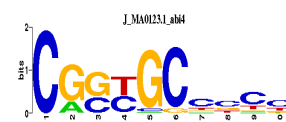
31

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0123.1\_abi4

2.3258e-07

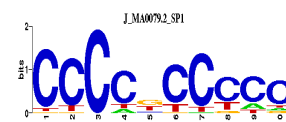
—GGGGSAGC—  
NGNNGCRSCG



J\_MA0079.2\_SP1

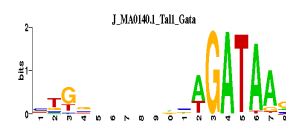
8.8164e-05

GGGGSAGC—  
GGGGGNGGGG



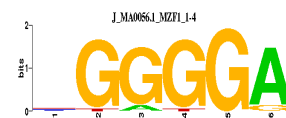
J\_MA0140.1\_Tal1\_Gata 9.7323e-05

----GCTSCCCC-----  
NTTATCTNNNNNNNNNCNN



J\_MA0056.1\_MZF1\_1-4 9.5214e-04

GCTSCCCC  
--TCCCCN



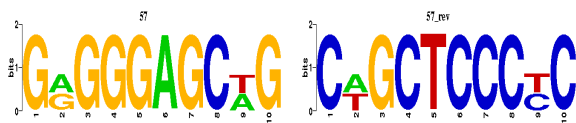
J\_MA0283.1\_CHA4

1.0447e-03

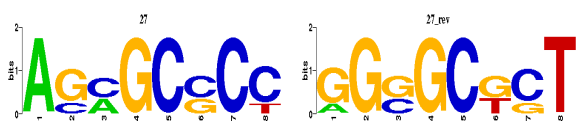
GCTSCCCC  
NCTCCGCC



57

*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i>             |
|----------------------|----------------|-------------------------------------------|--------------------------|
| J_MA0079.2_SP1       | 1.8292e-04     | GRGGGAGCWG<br>GGGGNGGGG                   | J_MA0079.2_SP1<br>       |
| J_MA0140.1_Tal1_Gata | 4.4018e-04     | -----CWGCTCCCYC---<br>NTTATCTNNNNNNNNNCNN | J_MA0140.1_Tal1_Gata<br> |
| J_MA0056.1_MZF1_1-4  | 1.4718e-03     | CWGCTCCCYC<br>----TCCCN                   | J_MA0056.1_MZF1_1-4<br>  |
| J_MA0055.1_Myf       | 2.2074e-03     | ---CWGCTCCCYC<br>CAGCAGYTGCYK-            | J_MA0055.1_Myf<br>       |
| J_MA0283.1_CHA4      | 2.4358e-03     | GRGGGAGCWG<br>GGCGGAGN--                  | J_MA0283.1_CHA4<br>      |



27

*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>         | <i>Motif</i>        |
|-----------------|----------------|--------------------------|---------------------|
| J_MA0123.1_abi4 | 1.3097e-04     | -GGSGCKCT-<br>NGNNGCRSCG | J_MA0123.1_abi4<br> |
| J_MA0443.1_btd  | 5.7414e-04     | AGMGCSCC--<br>YCCGCCCMCN | J_MA0443.1_btd<br>  |

J\_MA0450.1\_hkb 7.0449e-04

-AGMGCSCC  
TCACGCCCM

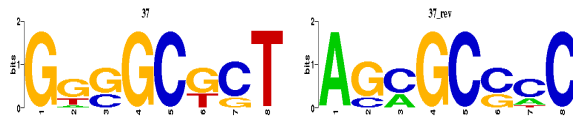
J\_MA0384.1\_SNT2 7.7769e-04

GGSGCKCT----  
-NGGCGCTAYCA

J\_MA0375.1\_RSC30 8.0932e-04

GGSGCKCT  
CGCGCGSN

37

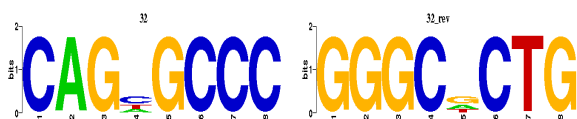
*forward**reverse complement*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                      | <i>Motif</i> |
|-----------------|----------------|---------------------------------------|--------------|
| J_MA0123.1_abi4 | 1.2894e-04     | -GGGGCGCT-<br>NGNNGCRSCG              |              |
| J_MA0443.1_btd  | 2.2382e-04     | AGCGCCCC--<br>YCCGCCCMCN              |              |
| J_MA0450.1_hkb  | 2.3445e-04     | -AGCGCCCC<br>TCACGCCCM                |              |
| J_MA0384.1_SNT2 | 2.4541e-04     | GGGGCGCT----<br>-NGGCGCTAYCA          |              |
| J_MA0139.1_CTCF | 3.2601e-04     | -AGCGCCCC-----<br>NNSYGCCMCCTRSTGGNNR |              |

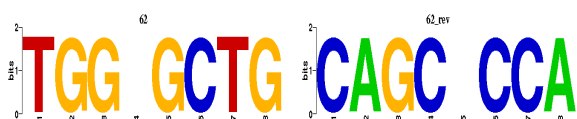
32

## Stamp Results

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*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|-----------------|----------------|-----------------------------------------|--------------|
| J_MA0123.1_abi4 | 1.0802e-06     | CAGNGCCC--<br>CGSYGCNNCN                |              |
| J_MA0138.2_REST | 3.3583e-05     | GGGCNCTG-----<br>-GNNGCTGTCCNNGGTGCTGAN |              |
| J_MA0384.1_SNT2 | 9.7521e-05     | GGGCNCTG---<br>NGGCGCTAYCA              |              |
| J_MA0213.1_brk  | 1.8427e-04     | CAGNGCCC-<br>-RGCGCCRS                  |              |
| J_MA0316.1_HAP5 | 5.7869e-04     | -----CAGNGCCC-<br>ACCAATNAGMNNSSN       |              |



62

*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|-----------------|----------------|-----------------------------------------|--------------|
| J_MA0213.1_brk  | 4.8140e-07     | CAGCNCCA-<br>-RGCGCCRS                  |              |
| J_MA0138.2_REST | 9.1051e-06     | TGGNGCTG-----<br>-GNNGCTGTCCNNGGTGCTGAN |              |

J\_MA0024.1\_E2F1 1.1273e-05

CAGCNCCA--  
--GCGCSAAA

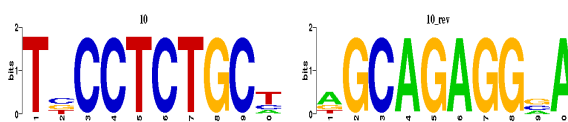
J\_MA0384.1\_SNT2 3.8006e-05

TGGNGCTG---  
NGGCGCTAYCA

J\_MA0138.1\_REST 6.3396e-05

-CAGCNCCA-----  
TCAGCACCWNGGACAGCNC

10

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0081.1\_SPIB

1.9586e-05

TNCCTCTGCN  
TTCKST---

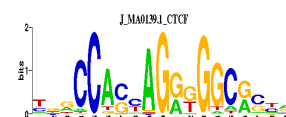
J\_MA0370.1\_RME1

3.3572e-04

TNCCTCTGCN  
TNCCTTTNNA

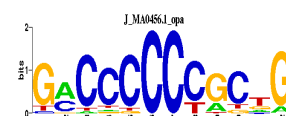
J\_MA0139.1\_CTCF

4.4792e-04

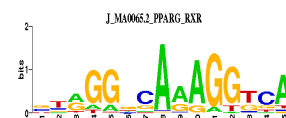
----TNCCTCTGCN-----  
NNSYGCCMCCTRSTGGNNR

J\_MA0456.1\_opa

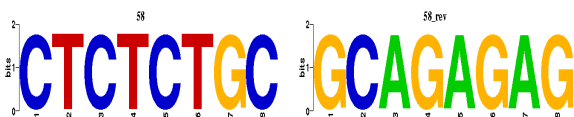
1.3022e-03

-TNCCTCTGCN-  
GMCCCCCGCNG

J\_MA0065.2\_PPARG\_RXR 1.5291e-03

-TNCCTCTGCN----  
TGMCTTTGNCCYNN

58

*forward**reverse compliment*

| <i>Name</i>        | <i>E value</i> | <i>Alignment</i>           | <i>Motif</i> |
|--------------------|----------------|----------------------------|--------------|
| J_MA0354.1_PDR8    | 3.1718e-03     | GCAGAGAG<br>NCGGAGAT       |              |
| J_MA0432.1_YNR063W | 3.3119e-03     | GCAGAGAG<br>TCGGAGAT       |              |
| J_MA0205.1_Trl     | 3.5160e-03     | GCAGAGAG---<br>-NNGAGAGNNR |              |
| J_MA0287.1_CUP2    | 4.0331e-03     | --GCAGAGAG-<br>CAGCARAAWG  |              |
| J_MA0283.1_CHA4    | 5.2884e-03     | CTCTCTGC-<br>-NCTCCGCC     |              |



59

*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>        | <i>Motif</i> |
|-----------------|----------------|-------------------------|--------------|
| J_MA0039.1_Klf4 | 4.7915e-04     | -CTCYCTCT-<br>CCTTYYTTN |              |
| J_MA0081.1_SPIB | 7.3571e-04     | CTCYCTCT<br>-TTCKST     |              |

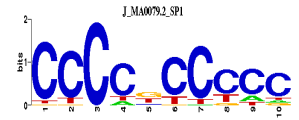
J\_MA0057.1\_MZF1\_5-13 1.6732e-03

--AGAGRGAG  
NKAGGGGNAN



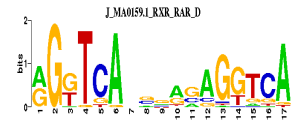
J\_MA0079.2\_SP1 3.1150e-03

AGAGRGAG---  
-GGGGGNGGGG

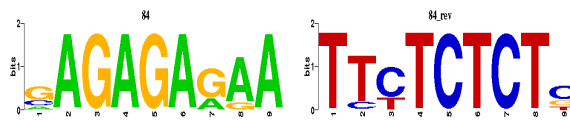


J\_MA0159.1\_RXR\_RAR\_D 4.4762e-03

-----AGAGRGAG-----  
RGKTCANNRNRNAGGTCA



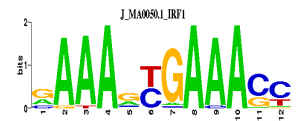
84

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0050.1\_IRF1

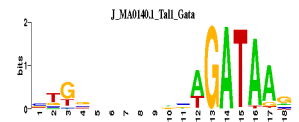
6.0607e-04

SAGAGAGAA---  
NAAANYGAAACC



J\_MA0140.1\_Tal1\_Gata 8.9869e-04

-----SAGAGAGAA-  
NNGNNNNNNNAGATAAN



J\_MA0277.1\_AZF1

2.6920e-03

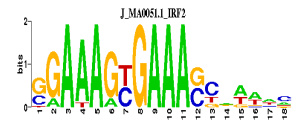
-TTCTCTCTS  
TTTCTTTTT-



J\_MA0051.1\_IRF2

3.0013e-03

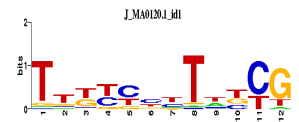
-----TTCTCTCTS-  
NNWWNRSTTTTCRCTTCS



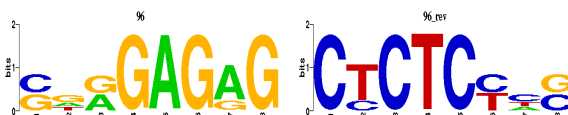
J\_MA0120.1\_id1

3.2527e-03

-SAGAGAGAA--  
CGNNANNRRMNA



96

*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|----------------------|----------------|-----------------------------------------|--------------|
| J_MA0062.1_GABPA     | 7.2684e-04     | CTCTCYNS--<br>SNCTTCCGGT                |              |
| J_MA0079.2_SP1       | 1.4483e-03     | --SNRGAGAG--<br>GGGGGNGGGG              |              |
| J_MA0140.1_Tal1_Gata | 2.2377e-03     | ---CTCTCYNS-----<br>NTTATCTNNNNNNNNNCNN |              |
| J_MA0354.1_PDR8      | 4.2906e-03     | CTCTCYNS<br>ATCTCCGN                    |              |
| J_MA0432.1_YNR063W   | 4.7789e-03     | SNRGAGAG<br>TCGGAGAT                    |              |



52

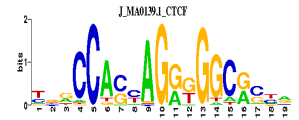
*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>           | <i>Motif</i> |
|------------------|----------------|----------------------------|--------------|
| J_MA0062.1_GABPA | 8.9325e-06     | CTCTTSTG--<br>SNCTTCCGGT   |              |
| J_MA0287.1_CUP2  | 7.9755e-04     | CTCTTSTG---<br>CWTTTYTGCTG |              |

J\_MA0327.1\_MATA1 2.4070e-03

CTCTTSTG-  
--ATTGTGY

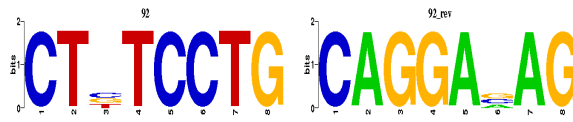
J\_MA0139.1\_CTCF 3.1918e-03

-----CTCTTSTG-----  
NNSYGCCMCCTRSTGGNNR

J\_MA0247.1\_tin 3.3979e-03

CTCTTSTG  
CACTTGAR

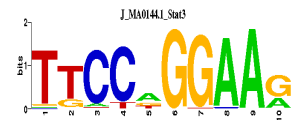
92

*forward**reverse compliment**Name**E value**Alignment**Motif*

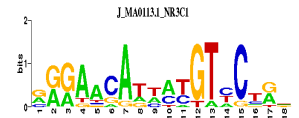
J\_MA0156.1\_FEV 8.7005e-06

CTNTCCTG  
AYTTCCTG

J\_MA0144.1\_Stat3 9.8841e-04

---CAGGANAG  
TTCCNGGAAG-

J\_MA0113.1\_NR3C1 1.9118e-03

-CAGGANAG-----  
NYNGNACRKNNTGTTTCYN

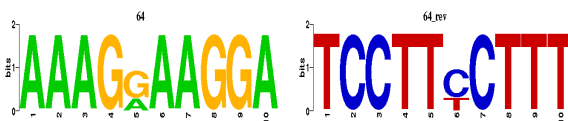
J\_MA0207.1\_achi 2.0308e-03

CTNTCCTG  
CTGTCA--

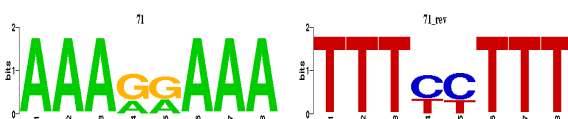
J\_MA0287.1\_CUP2 2.7469e-03

---CTNTCCTG  
CWTTYTGCTG

64

*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                       | <i>Motif</i> |
|----------------------|----------------|----------------------------------------|--------------|
| J_MA0039.1_Klf4      | 4.0653e-11     | -AAAGGAAGGA<br>NAARRRAAGG-             |              |
| J_MA0149.1_EWSR1-FLI | 1.4832e-10     | -AAAGGAAGGA-----<br>GGAAGGAAGGAAGGAAGG |              |
| J_MA0370.1_RME1      | 1.3581e-06     | ---AAAGGAAGGA<br>TNNAAAGGNA---         |              |
| J_MA0080.2_SPI1      | 2.2126e-06     | TCCTTCCTTT<br>-ACTTCCT--               |              |
| J_MA0277.1_AZF1      | 8.1762e-05     | TCCTTCCTTT--<br>---TTTCTTTT            |              |



71

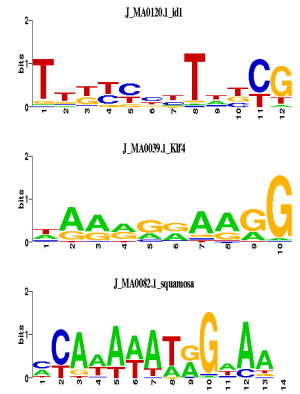
*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>           | <i>Motif</i> |
|-----------------|----------------|----------------------------|--------------|
| J_MA0277.1_AZF1 | 1.7901e-10     | TTTYCTTT-<br>TTTCTTTT      |              |
| J_MA0370.1_RME1 | 8.7259e-08     | TTTYCTTT---<br>-TNCCTTTNNA |              |

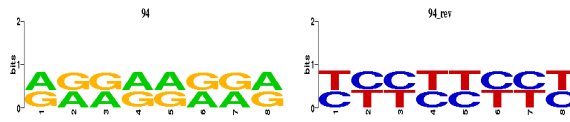
## Stamp Results

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|                     |            |                                |
|---------------------|------------|--------------------------------|
| J_MA0120.1_id1      | 1.4031e-07 | ---AAAGRAAA--<br>CGNNANNRRMNA  |
| J_MA0039.1_Klf4     | 7.0947e-07 | -AAAGRAAA-<br>NAARRRAAGG       |
| J_MA0082.1_squamosa | 2.7859e-05 | -TTYCTTT-----<br>NTTNCYATWTWGK |



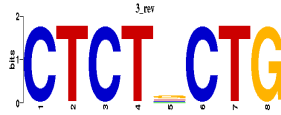
94

*forward**reverse compliment*

| Name            | E value    | Alignment                   | Motif |
|-----------------|------------|-----------------------------|-------|
| J_MA0039.1_Klf4 | 2.2953e-07 | YYYYYYYY--<br>CCTTYYYTNN    |       |
| J_MA0120.1_id1  | 1.4430e-05 | -RRRRRRRR--<br>CGNNANNRRMNA |       |
| J_MA0277.1_AZF1 | 3.5081e-03 | RRRRRRRR--<br>AAAAAGAAA     |       |
| J_MA0079.2_SP1  | 6.8121e-03 | --RRRRRRRR<br>GGGGNGGGG     |       |
| J_MA0080.2_SPI1 | 1.0702e-02 | RRRRRRRR<br>AGGAAGT-        |       |

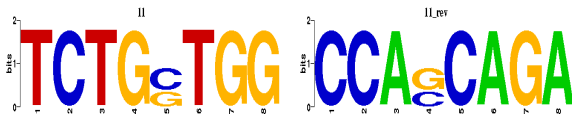
3



*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|-----------------|----------------|-------------------------------------------|--------------|
| J_MA0287.1_CUP2 | 2.1430e-06     | ---CTCTNCTG<br>CWITTYTGCTG                |              |
| J_MA0139.1_CTCF | 2.2354e-04     | -----CTCTNCTG-----<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0320.1_IME1 | 5.9623e-04     | CTCTNCTG<br>CTCGGCGG                      |              |
| J_MA0456.1_opa  | 7.4147e-04     | CAGNAGAG----<br>CNGCGGGGGGKC              |              |
| J_MA0402.1_SWI5 | 7.7488e-04     | ---CAGNAGAG<br>NACCAGCA---                |              |

11

*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|-----------------|----------------|-----------------------------------------|--------------|
| J_MA0139.1_CTCF | 1.2716e-06     | -----TCTGSTGG---<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0402.1_SWI5 | 9.0317e-06     | --CCASCAGA<br>NACCAGCA--                |              |

## Stamp Results

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J\_MA0287.1\_CUP2 1.3518e-05

----TCTGSTGG  
CWTTTYTGCTG-



J\_MA0055.1\_Myf 3.6019e-04

-----TCTGSTGG  
MRGCARCTGCTG-

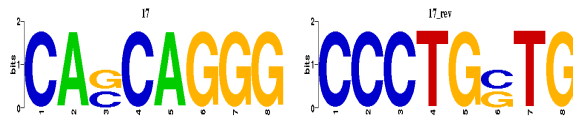


J\_MA0267.1\_ACE2 7.1862e-04

TCTGSTGG-  
--NGCTGGN

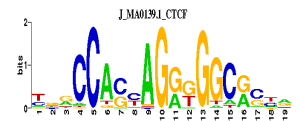


17

*forward**reverse complement**Name**E value**Alignment**Motif*

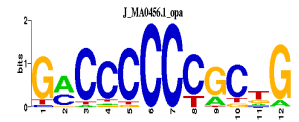
J\_MA0139.1\_CTCF 5.3545e-08

-----CCCTGSTG-----  
NNSYGCCMCCTRSTGGNNR



J\_MA0456.1\_opa 1.3811e-06

CASCAGGG----  
CNGCGGGGGGKC



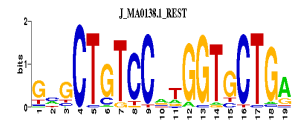
J\_MA0364.1\_REI1 1.6870e-04

CASCAGGG-  
--NCAGGGG



J\_MA0138.1\_REST 2.4579e-04

-----CCCTGSTG-----  
GNGCTGTCCNWGGTGCTGA



J\_MA0055.1\_Myf 4.1025e-04

----CCCTGSTG  
MRGCARCTGCTG



5



*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|-----------------|----------------|-----------------------------------------|--------------|
| J_MA0139.1_CTCF | 3.5630e-06     | -----CCTGCTGG---<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0402.1_SWI5 | 6.0319e-06     | --CCAGCAGG<br>NACCAGCA--                |              |
| J_MA0456.1_opa  | 2.5785e-04     | -----CCTGCTGG<br>GMCCCCCGCNG--          |              |
| J_MA0055.1_Myf  | 3.4886e-04     | CCAGCAGG-----<br>-CAGCAGYTGCYK          |              |
| J_MA0267.1_ACE2 | 6.1600e-04     | CCTGCTGG--<br>--NGCTGGN                 |              |

66

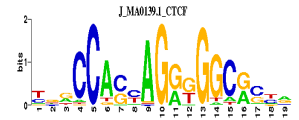
*forward**reverse compliment*

| <i>Name</i>    | <i>E value</i> | <i>Alignment</i>               | <i>Motif</i> |
|----------------|----------------|--------------------------------|--------------|
| J_MA0055.1_Myf | 4.4945e-04     | ACWGCAGG-----<br>-CAGCAGYTGCYK |              |
| J_MA0456.1_opa | 6.6694e-04     | -----CCTGCGWT<br>GMCCCCCGCNG-- |              |

J\_MA0076.1\_ELK4 1.9368e-03

ACWGCAGG-  
ACTTCCGGT

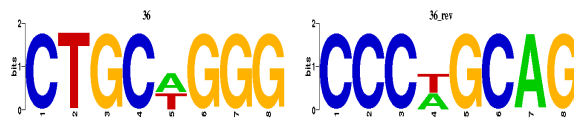
J\_MA0139.1\_CTCF 3.0012e-03

-----CCTGCWGT---  
NNSYGCCMCCTRSTGGNNR

J\_MA0454.1\_odd 4.1486e-03

--CCTGCWGT-  
NTGCTACTGTN

36

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0402.1\_SWI5 3.3438e-05

-CCCWGCAG  
NACCAGCA-

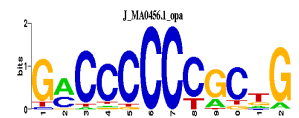
J\_MA0055.1\_Myf 5.5894e-04

CCCWGCAG-----  
--CAGCAGYTG CYK

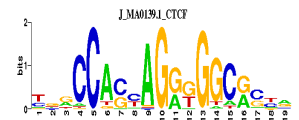
J\_MA0364.1\_REI1 1.1562e-03

CTGCWGGG-  
--NCAGGGG

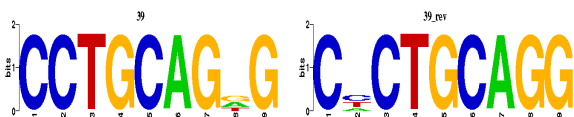
J\_MA0456.1\_opa 2.0358e-03

CTGCWGGG----  
CNGCGGGGGGKC

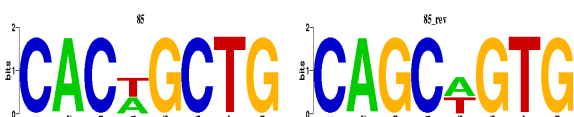
J\_MA0139.1\_CTCF 2.0843e-03

-----CTGCWGGG--  
NNSYGCCMCCTRSTGGNNR

39

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|------------------|----------------|-------------------------------------------|--------------|
| J_MA0139.1_CTCF  | 3.3448e-04     | -----CNCCTGCAGG---<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0062.1_GABPA | 6.9438e-04     | -CCTGCAGNG<br>ACCGGAAGNS                  |              |
| J_MA0385.1_SOK2  | 2.9280e-03     | CNCCTGCAGG--<br>NNMTGCAKNNN               |              |
| J_MA0364.1_REI1  | 3.2941e-03     | CCTGCAGNG-<br>---NCAGGGG                  |              |
| J_MA0402.1_SWI5  | 7.6718e-03     | --CCTGCAGNG<br>NACCAGCA---                |              |



85

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>             | <i>Motif</i> |
|------------------|----------------|------------------------------|--------------|
| J_MA0048.1_NHLH1 | 2.3866e-05     | ---CAGCWGTG-<br>NCGCAGCTGCGN |              |
| J_MA0055.1_Myf   | 3.7952e-05     | CAGCWGTG----<br>CAGCAGYTGCYK |              |

J\_MA0335.1\_MET4 5.4481e-05

—CACWGCTG  
CCACAGNT—



J\_MA0332.1\_MET28 4.7174e-04

—CACWGCTG  
CCACAG---

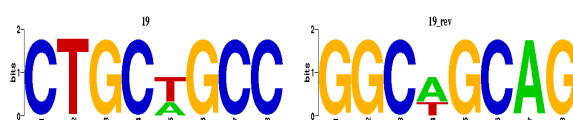


J\_MA0009.1\_T 2.3895e-03

--CACWGCTG--  
TTCACACCTAG



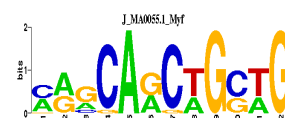
19

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0055.1\_Myf

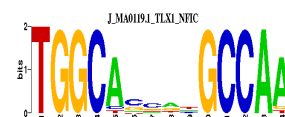
1.5331e-05

---CTGCTGCC--  
CAGCAGYTGCK



J\_MA0119.1\_TLX1\_NFIC 2.9075e-04

-----CTGCTGCC--  
TTGGCNNNSTGCCA



J\_MA0048.1\_NHLH1

6.5515e-04

---CTGCTGCC--  
NCGCAGCTGCGN



J\_MA0111.1\_Spz1

1.5837e-03

—CTGCTGCC--  
GCTGWTACCCT



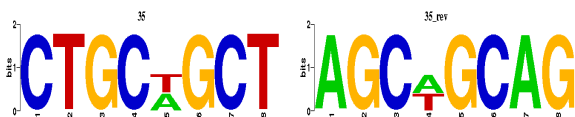
J\_MA0402.1\_SWI5

1.6176e-03

CTGCTGCC--  
—TGCTGGTN



35

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>               | <i>Motif</i> |
|------------------|----------------|--------------------------------|--------------|
| J_MA0055.1_Myf   | 3.8072e-07     | CTGCWGCT----<br>CAGCAGYTGCYK   |              |
| J_MA0454.1_odd   | 8.5762e-05     | CTGCWGCT---<br>NTGCTACTGTN     |              |
| J_MA0402.1_SWI5  | 2.4046e-04     | CTGCWGCT-<br>-TGCTGGTN         |              |
| J_MA0048.1_NHLH1 | 5.7972e-04     | CTGCWGCT----<br>NCGCAGCTGCGN   |              |
| J_MA0287.1_CUP2  | 4.9190e-03     | -----CTGCWGCT<br>CWTTTYTGCTG-- |              |



56

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>             | <i>Motif</i> |
|------------------|----------------|------------------------------|--------------|
| J_MA0048.1_NHLH1 | 2.9034e-06     | -GGCWGCTG---<br>NCGCAGCTGCGN |              |
| J_MA0055.1_Myf   | 3.6639e-06     | -GGCWGCTG---<br>CAGCAGYTGCYK |              |

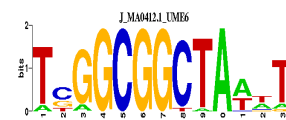
J\_MA0454.1\_odd 9.5482e-04

—GGCWGCTG—  
NTGCTACTGTN



J\_MA0412.1\_UME6 1.3568e-03

---CAGCWGCC--  
AwwTAGCCGCCSA

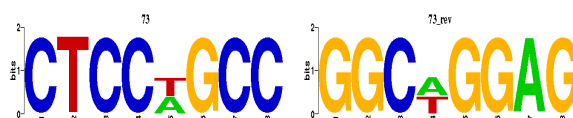


J\_MA0086.1\_sna 4.0364e-03

CAGCWGCC  
CACCTG--



73

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0410.1\_UGA3 1.4647e-04

—GGCWGGAG  
NGGCGGGA—



J\_MA0086.1\_sna 1.5403e-03

CTCCWGCC  
CACCTG--



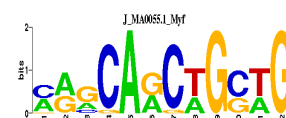
J\_MA0267.1\_ACE2 2.4084e-03

GGCWGGAG  
NGCTGGN—



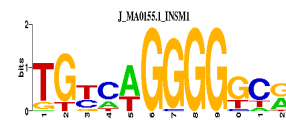
J\_MA0055.1\_Myf 2.9431e-03

CTCCWGCC----  
CAGCAGYTGCYK



J\_MA0155.1\_INSM1 3.5645e-03

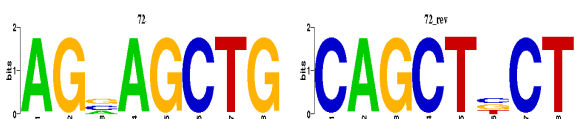
—GGCWGGAG---  
TGYCAGGGGGCR



29

*forward**reverse compliment*

| <i>Name</i>        | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|--------------------|----------------|-------------------------------------------|--------------|
| J_MA0086.1_sna     | 4.2550e-08     | CANCTGCT<br>CACCTG--                      |              |
| J_MA0055.1_Myf     | 7.7040e-06     | ----AGCAGNTG<br>MRGCARCTGCTG              |              |
| J_MA0048.1_NHLH1   | 2.6528e-05     | -AGCAGNTG---<br>NCGCAGCTGCGN              |              |
| J_MA0059.1_MYC_MAX | 3.6626e-05     | --CANCTGCT-<br>ACCACGTGSTN                |              |
| J_MA0139.1_CTCF    | 1.0823e-04     | -----AGCAGNTG-----<br>YNNCCASYAGGKGCCRSNN |              |



72

*forward**reverse compliment*

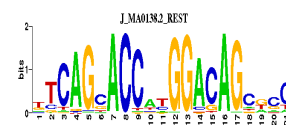
| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>             | <i>Motif</i> |
|------------------|----------------|------------------------------|--------------|
| J_MA0055.1_Myf   | 1.0230e-06     | ---CAGCTNCT-<br>CAGCAGYTGCTG |              |
| J_MA0048.1_NHLH1 | 2.8438e-06     | -AGNAGCTG---<br>NCGCAGCTGCGN |              |

## Stamp Results

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J\_MA0138.2\_REST 1.5070e-03

AGNAGCTG-----  
 -GNNGCTGTCCNNGGTGCTGAN



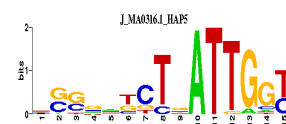
J\_MA0086.1\_sna 5.3507e-03

CAGCTNCT  
 CACCTG--

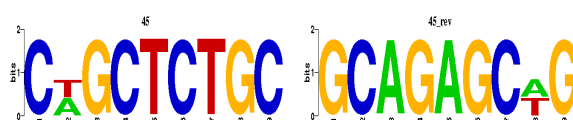


J\_MA0316.1\_HAP5 5.4121e-03

-----CAGCTNCT-  
 ACCAATNAGMNNSSN



45

*forward**reverse compliment**Name**E value**Alignment**Motif*

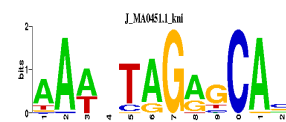
J\_MA0287.1\_CUP2 1.3251e-03

--GCAGAGCWG  
 CAGCARAAWG



J\_MA0451.1\_kni 3.7333e-03

CWGCTCTGC---  
 NTGCTCTANTTT



J\_MA0326.1\_MAC1 9.2166e-03

GCAGAGCWG--  
 --YGAGCAAA



J\_MA0283.1\_CHA4 1.0565e-02

CWGCTCTGC--  
 --NCTCCGCC

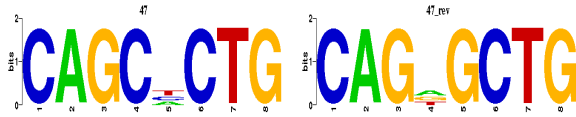


J\_MA0320.1\_IME1 1.4801e-02

--GCAGAGCWG  
 CCGCCGAG---

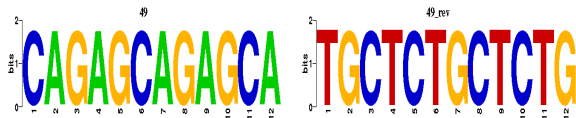


47

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                       | <i>Motif</i> |
|------------------|----------------|----------------------------------------|--------------|
| J_MA0014.1_Pax5  | 1.4187e-03     | -----CAGNGCTG-<br>YSGYYMCGCWNCRNNNNNCN |              |
| J_MA0403.1_TBF1  | 4.8191e-03     | -CAGNGCTG<br>NTAGGGYT-                 |              |
| J_MA0364.1_REI1  | 8.4044e-03     | -CAGNGCTG<br>NCAGGGG--                 |              |
| J_MA0138.1_REST  | 1.0290e-02     | -----CAGNGCTG-<br>GNGCTGTCCNWGGTGCTGA  |              |
| J_MA0048.1_NHLH1 | 1.2554e-02     | -CAGNGCTG---<br>NCGCAGCTGCGN           |              |

49

*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>               | <i>Motif</i> |
|-----------------|----------------|--------------------------------|--------------|
| J_MA0451.1_kni  | 9.4102e-05     | CAGAGCAGAGCA-<br>-AAANTAGAGCAN |              |
| J_MA0326.1_MAC1 | 4.9031e-04     | CAGAGCAGAGCA<br>-YGAGCAAA---   |              |

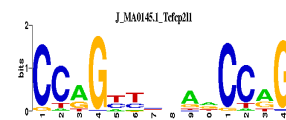
J\_MA0065.2\_PPARG\_RXR 2.9721e-03

--TGCTCTGCTCTG--  
TGMCCTTTGNCCYNN



J\_MA0145.1\_Tcfcp211 1.6171e-02

--CAGAGCAGAGCA--  
CCRGNYNNANCCRG

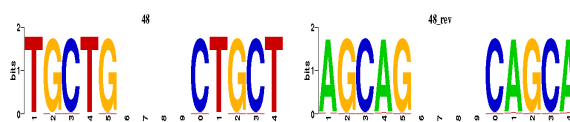


J\_MA0287.1\_CUP2 1.9958e-02

--TGCTCTGCTCTG  
CWTTTYTGCTG--



48

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0402.1\_SWI5 1.2273e-02

AGCAGNNNNCAGCA  
-----NACCAGCA



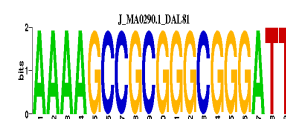
J\_MA0150.1\_NFE2L2 6.4957e-02

TGCTGNNNNCTGCT  
TGCTNWTGTCAY---



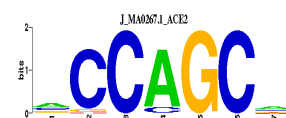
J\_MA0290.1\_DAL81 9.0028e-02

---AGCAGNNNNCAGCA--  
AAAAGCCGCGGGCGGGATT



J\_MA0267.1\_ACE2 1.0153e-01

TGCTGNNNNCTGCT  
NGCTGGN-----



J\_MA0417.1\_YAP5 1.0997e-01

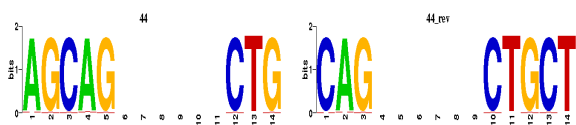
--TGCTGNNNNCTGCT  
ATGCTT-----



44

## Stamp Results

11/21/15

*forward**reverse compliment*

| Name            | E value    | Alignment                               | Motif |
|-----------------|------------|-----------------------------------------|-------|
| J_MA0417.1_YAP5 | 1.0997e-01 | CAGNNNNNNCTGCT-<br>-----ATGCTT          |       |
| J_MA0055.1_Myf  | 1.6635e-01 | AGCAGNNNNNNCTG<br>--CAGCAGYTGCYK        |       |
| J_MA0326.1_MAC1 | 1.9344e-01 | --AGCAGNNNNNNCTG<br>YGAGCAAA-----       |       |
| J_MA0402.1_SWI5 | 2.0828e-01 | ----AGCAGNNNNNNCTG<br>NACCAGCA-----     |       |
| J_MA0454.1_odd  | 2.3915e-01 | CAGNNNNNNCTGCT-----<br>-----NTGCTACTGTN |       |



42

*forward**reverse compliment*

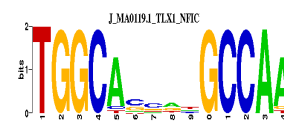
| Name            | E value    | Alignment                  | Motif |
|-----------------|------------|----------------------------|-------|
| J_MA0079.1_SP1  | 2.0867e-04 | --GGCASTGT<br>NNGGCNGGGT   |       |
| J_MA0123.1_abi4 | 2.4672e-04 | ---GGCASTGT<br>NGNNGCRSCG- |       |

## Stamp Results

11/21/15

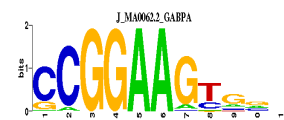
J\_MA0119.1\_TLX1\_NFIC 1.0743e-03

—GGCASTGT—  
TGGCASNNNGCCAA



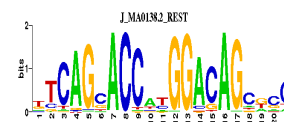
J\_MA0062.2\_GABPA 1.1351e-03

—ACASTGCC—  
NNCACTTCCGG

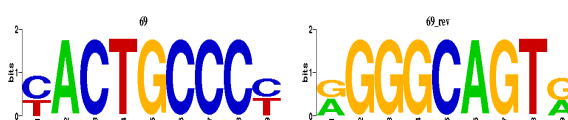


J\_MA0138.2\_REST 1.6332e-03

-----ACASTGCC  
NTCAGCACCNNGGACAGCNNC



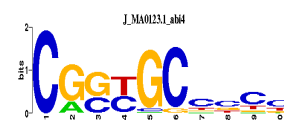
69

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0123.1\_abi4

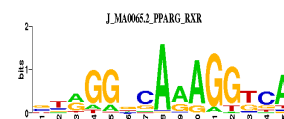
5.6266e-06

YACTGCCCY—  
CGSYGCNNCN



J\_MA0065.2\_PPARG\_RXR 7.6797e-05

—RGGGCAGTR—  
NNRGGNCAAAGGKCA



J\_MA0299.1\_GAL4

1.6095e-04

---YACTGCCCY---  
GANNRNTNTNNNCCG



J\_MA0112.2\_ESR1

1.2859e-03

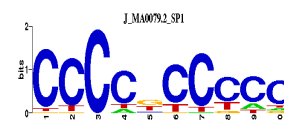
RGGGCAGTR-----  
RGGTCANNNTGACCTNNNNN



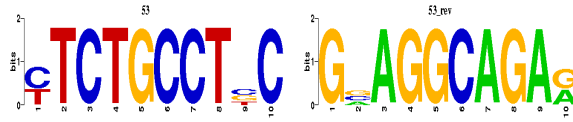
J\_MA0079.2\_SP1

1.6167e-03

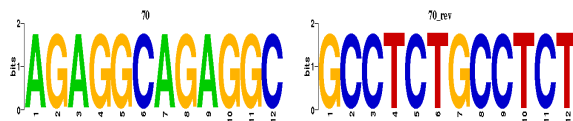
—RGGGCAGTR  
GGGGGNGGGG



53

*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|----------------------|----------------|-------------------------------------------|--------------|
| J_MA0140.1_Tal1_Gata | 2.4291e-04     | ---YTCTGCCTNC-----<br>NTTATCTNNNNNNNNNCNN |              |
| J_MA0283.1_CHA4      | 3.1843e-04     | -YTCTGCCTNC<br>NCTCCGCC---                |              |
| J_MA0340.1_MOT3      | 8.8002e-04     | YTCTGCCTNC<br>---TRCCTN-                  |              |
| J_MA0065.2_PPARG_RXR | 2.6170e-03     | ----YTCTGCCTNC-<br>TGMCCTTTGNCCYNN        |              |
| J_MA0080.2_SPI1      | 3.8906e-03     | YTCTGCCTNC<br>-ACTTCCT--                  |              |

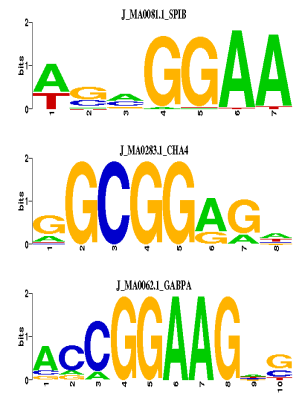


70

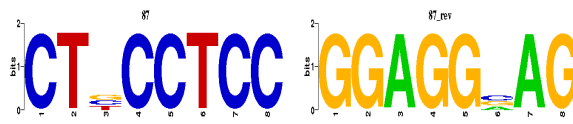
*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                   | <i>Motif</i> |
|----------------------|----------------|------------------------------------|--------------|
| J_MA0065.2_PPARG_RXR | 9.5999e-05     | --GCCTCTGCCTCT-<br>TGMCCTTTGNCCYNN |              |
| J_MA0146.1_Zfx       | 2.0543e-04     | AGAGGCAGAGGC---<br>-NAGGCCNNGGCNNN |              |

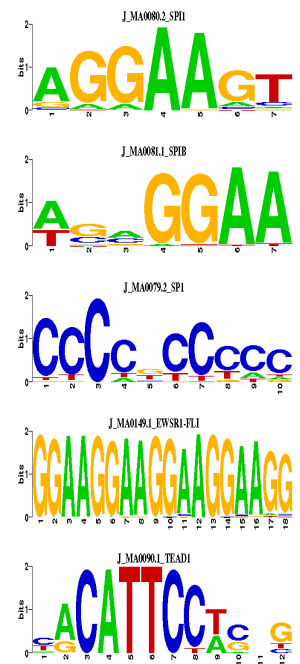
|                  |            |                              |
|------------------|------------|------------------------------|
| J_MA0081.1_SPIB  | 5.8925e-04 | GCCTCTGCCTCT<br>-----TTCKST  |
| J_MA0283.1_CHA4  | 6.4739e-04 | GCCTCTGCCTCT<br>-NCTCCGCC--- |
| J_MA0062.1_GABPA | 9.4136e-04 | AGAGGCAGAGGC<br>ACCGGAAGNS-- |



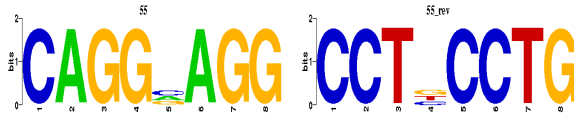
87

*forward**reverse compliment*

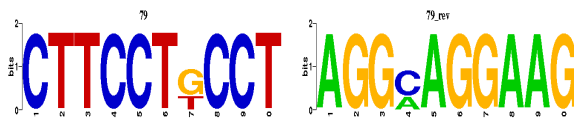
| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|----------------------|----------------|-----------------------------------------|--------------|
| J_MA0080.2_SPI1      | 6.2578e-05     | -CTNCCTCC<br>ACTTCCT--                  |              |
| J_MA0081.1_SPIB      | 3.3722e-04     | GGAGGNAG<br>ASMGGAA-                    |              |
| J_MA0079.2_SP1       | 3.6267e-04     | GGAGGNAG--<br>GGGGNGGGG                 |              |
| J_MA0149.1_EWSR1-FLI | 4.1074e-04     | -----CTNCCTCC-----<br>CCTTCCTTCCTTCCTCC |              |
| J_MA0090.1_TEAD1     | 4.2055e-04     | -GGAGGNAG---<br>CNSWGAATGTR             |              |



55

*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                       | <i>Motif</i> |
|----------------------|----------------|----------------------------------------|--------------|
| J_MA0144.1_Stat3     | 7.0865e-06     | CCTNCCTG---<br>-CTTCCNGGAA             |              |
| J_MA0156.1_FEV       | 8.9332e-06     | CCTNCCTG<br>AYTTCCTG                   |              |
| J_MA0026.1_Eip74EF   | 3.2205e-05     | CAGGNAGG<br>CCGGAAR-                   |              |
| J_MA0080.2_SPI1      | 3.4429e-05     | CCTNCCTG<br>ACTTCCT-                   |              |
| J_MA0149.1_EWSR1-FLI | 4.1241e-05     | ----CCTNCCTG-----<br>CCTTCCTTCCTTCCTCC |              |

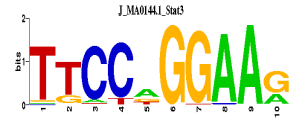


79

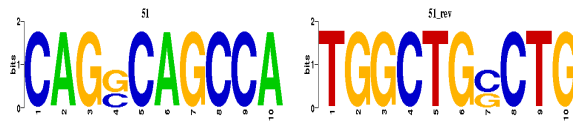
*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                       | <i>Motif</i> |
|----------------------|----------------|----------------------------------------|--------------|
| J_MA0149.1_EWSR1-FLI | 8.3572e-12     | -----AGGCAGGAAG-<br>GGAAGGAAGGAAGGAAGG |              |
| J_MA0156.1_FEV       | 1.2321e-06     | -CTTCCTGCCT<br>AYTTCCTG---             |              |

|                    |            |                            |
|--------------------|------------|----------------------------|
| J_MA0080.2_SPI1    | 1.4526e-06 | -CTTCCTGCCT<br>ACTTCCT---- |
| J_MA0026.1_Eip74EF | 3.2864e-06 | AGGCAGGAAG<br>---CCGGAAR   |
| J_MA0144.1_Stat3   | 6.8747e-06 | CTTCCTGCCT<br>CTTCNGGAA    |

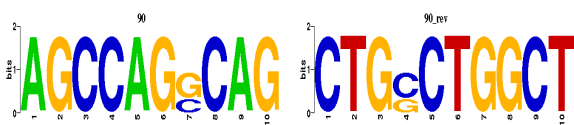


51

*forward**reverse compliment*

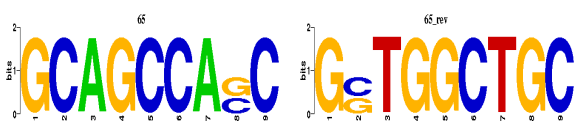
| Name                 | E value    | Alignment                        | Motif |
|----------------------|------------|----------------------------------|-------|
| J_MA0304.1_GCR1      | 4.6869e-04 | CAGSCAGCCA<br>-TGGAAGCC-         |       |
| J_MA0340.1_MOT3      | 4.9665e-04 | TGGCTGSCTG<br>----TRCCTN         |       |
| J_MA0119.1_TLX1_NFIC | 1.5131e-03 | -TGGCTGSCTG---<br>TTGGCNNNSTGCCA |       |
| J_MA0156.1_FEV       | 5.0185e-03 | TGGCTGSCTG<br>--AYTTCCTG         |       |
| J_MA0144.1_Stat3     | 6.2829e-03 | TGGCTGSCTG---<br>---CTTCNGGAA    |       |

90

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                    | <i>Motif</i> |
|------------------|----------------|-------------------------------------|--------------|
| J_MA0144.1_Stat3 | 4.0504e-05     | CTGCCTGGCT<br>CTTCCNGGAA            |              |
| J_MA0340.1_MOT3  | 3.2387e-04     | CTGCCTGGCT<br>-TRCCTN---            |              |
| J_MA0060.1_NFYA  | 1.3627e-03     | ---CTGCCTGGCT---<br>NNNCYSATTGGYNNN |              |
| J_MA0344.1_NHP10 | 1.4520e-03     | CTGCCTGGCT<br>-TCCCCGGN-            |              |
| J_MA0156.1_FEV   | 3.6923e-03     | -CTGCCTGGCT<br>AYTTCCTG---          |              |

65

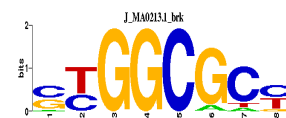
*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>         | <i>Motif</i> |
|-----------------|----------------|--------------------------|--------------|
| J_MA0373.1_RPN4 | 3.6182e-05     | GCAGCCASC<br>--CGCCACC   |              |
| J_MA0267.1_ACE2 | 2.0066e-03     | -GSTGGCTGC<br>NGCTGGN--- |              |

J\_MA0285.1\_CRZ1 2.9429e-03

GSTGGCTGC-  
-GNGGCTNNN

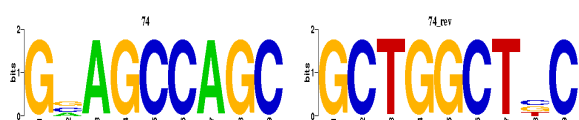
J\_MA0213.1\_brk 4.3874e-03

GCAGCCASC  
RGCGCCRS-

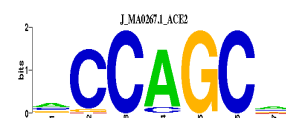
J\_MA0334.1\_MET32 5.6778e-03

GSTGGCTGC  
TGTTGCN--

74

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0267.1\_ACE2 3.9729e-04

-GCTGGCTNC  
NGCTGGN---

J\_MA0260.1\_che-1 5.3341e-04

GCTGGCTNC  
---GGYTTC

J\_MA0213.1\_brk 7.3312e-04

GNAGCCAGC  
RGCGCCRS-

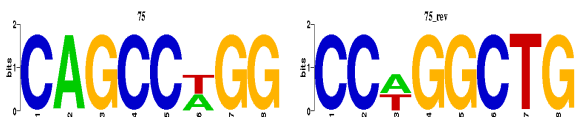
J\_MA0304.1\_GCR1 1.3800e-03

GCTGGCTNC--  
---GGCTTCCA

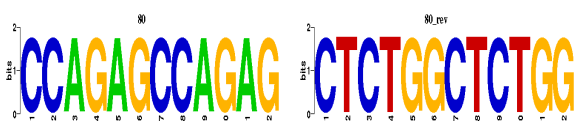
J\_MA0402.1\_SWI5 1.5039e-03

GNAGCCAGC-  
--NACCAGCA

75

*forward**reverse compliment*

| <i>Name</i>       | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|-------------------|----------------|-------------------------------------------|--------------|
| J_MA0112.2_ESR1   | 3.0597e-03     | -----CAGCCWGG---<br>NNNNNAGGT CANNNTGACCY |              |
| J_MA0144.1_Stat3  | 3.7051e-03     | CAGCCWGG--<br>CTTCCNGGAA                  |              |
| J_MA0155.1_INSM1  | 6.3778e-03     | -----CCWGGCTG<br>YGCCCCCTGRCA-            |              |
| J_MA0344.1_NHP10  | 9.4744e-03     | --CCWGGCTG<br>TCCCCGNN--                  |              |
| J_MA0368.1_RIM101 | 1.0636e-02     | CCWGGCTG<br>CTTGCCR-                      |              |



80

*forward**reverse compliment*

| <i>Name</i>        | <i>E value</i> | <i>Alignment</i>               | <i>Motif</i> |
|--------------------|----------------|--------------------------------|--------------|
| J_MA0213.1_brk     | 6.5288e-04     | CCAGAGCCAGAG<br>--RGC GCCRS--  |              |
| J_MA0092.1_Hand1_T | 7.0522e-04     | CCAGAGCCAGAG-<br>---NWNCCAGAYN |              |

J\_MA0332.1\_MET28 1.1280e-03

CTCTGGCTCTGG  
CTGTGG-----

J\_MA0278.1\_BAS1 1.3621e-03

---CTCTGGCTCTGG-----  
NNNWNVTGACTCNGGCYNNNN

J\_MA0024.1\_E2F1 4.7099e-03

CCAGAGCCAGAG  
---GCGCSAAA--

83

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0370.1\_RME1 3.7396e-04

-CYAGAGGCWG  
TNNAAGGNA-

J\_MA0081.1\_SPIB 1.4833e-03

CWGCCTCTRG  
-TTCKST--

J\_MA0278.1\_BAS1 2.0079e-03

-----CWGCCTCTRG-----  
NNNWNVTGACTCNGGCYNNNN

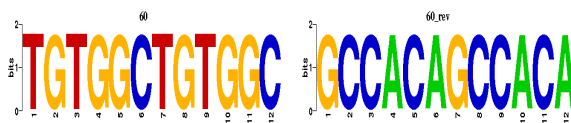
J\_MA0332.1\_MET28 3.2047e-03

CYAGAGGCWG  
CCACAG----

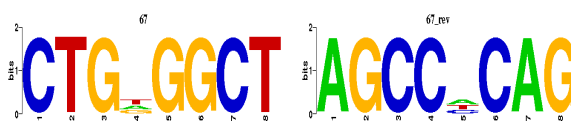
J\_MA0340.1\_MOT3 6.1262e-03

CWGCCTCTRG  
-TRCCTN---

60

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>              | <i>Motif</i> |
|------------------|----------------|-------------------------------|--------------|
| J_MA0332.1_MET28 | 8.4396e-08     | GCCACAGCCACA<br>-CCACAG-----  |              |
| J_MA0334.1_MET32 | 4.3334e-06     | TGTGGCTGTGGC<br>TGTGGCN-----  |              |
| J_MA0039.2_Klf4  | 1.4769e-05     | GCCACAGCCACA<br>GCCMCRCNCCN-- |              |
| J_MA0335.1_MET4  | 5.4529e-05     | GCCACAGCCACA<br>-CCACAGNT---  |              |
| J_MA0373.1_RPN4  | 1.6312e-03     | -GCCACAGCCACA<br>CGCCACC----- |              |



67

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>     | <i>Motif</i> |
|------------------|----------------|----------------------|--------------|
| J_MA0332.1_MET28 | 3.0568e-07     | AGCCNCAG<br>--CCACAG |              |
| J_MA0334.1_MET32 | 5.0805e-06     | CTGNGGCT<br>-TGTGGCN |              |

J\_MA0002.2\_RUNX1 8.4962e-06

--AGCCNCAG--  
NAACCACARNN



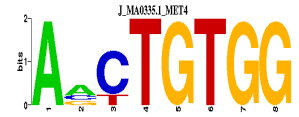
J\_MA0285.1\_CRZ1 2.7065e-05

CTGNGGCT---  
--GNGGCTNNN

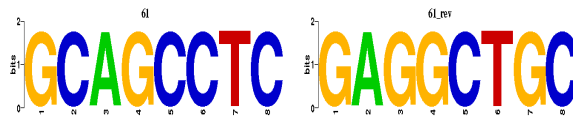


J\_MA0335.1\_MET4 3.8588e-05

AGCCNCAG--  
--CCACAGNT



61

*forward**reverse compliment**Name**E value**Alignment**Motif*

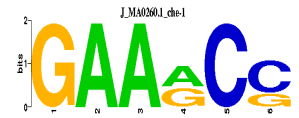
J\_MA0048.1\_NHLH1 1.4849e-03

--GAGGCTGC--  
NCGCAGCTGCGN



J\_MA0260.1\_che-1 3.5833e-03

GAGGCTGC  
--GGYTTC



J\_MA0304.1\_GCR1 5.1298e-03

GAGGCTGC--  
--GGCTTCCA



J\_MA0285.1\_CRZ1 6.8474e-03

GAGGCTGC-  
GNGGCTNNN



J\_MA0271.1\_ARG80 1.7014e-02

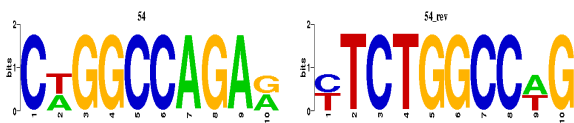
GAGGCTGC  
GNGTCW--



54

## Stamp Results

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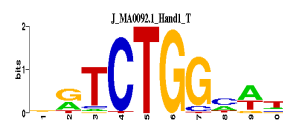
*forward**reverse complement*

| Name | E value | Alignment | Motif |
|------|---------|-----------|-------|
|------|---------|-----------|-------|

|                 |            |                          |                 |
|-----------------|------------|--------------------------|-----------------|
| J_MA0381.1_SKN7 | 4.2788e-04 | YTCTGGCCWG<br>--NYGGCC-- | J_MA0381.1_SKN7 |
|-----------------|------------|--------------------------|-----------------|



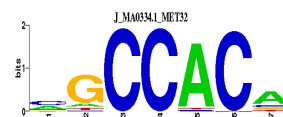
|                    |            |                             |                    |
|--------------------|------------|-----------------------------|--------------------|
| J_MA0092.1_Hand1_T | 5.4719e-04 | CWGGCCAGAR--<br>-NWNCCAGAYN | J_MA0092.1_Hand1_T |
|--------------------|------------|-----------------------------|--------------------|



|                  |            |                                  |                  |
|------------------|------------|----------------------------------|------------------|
| J_MA0114.1_HNF4A | 2.1546e-03 | ----YTCTGGCCWG<br>TGNMCTTTGNNCY- | J_MA0114.1_HNF4A |
|------------------|------------|----------------------------------|------------------|



|                  |            |                           |                  |
|------------------|------------|---------------------------|------------------|
| J_MA0334.1_MET32 | 3.6019e-03 | YTCTGGCCWG<br>-TG TG CN-- | J_MA0334.1_MET32 |
|------------------|------------|---------------------------|------------------|



|                  |            |                          |                  |
|------------------|------------|--------------------------|------------------|
| J_MA0332.1_MET28 | 3.6154e-03 | CWGGCCAGAR<br>----CCACAG | J_MA0332.1_MET28 |
|------------------|------------|--------------------------|------------------|

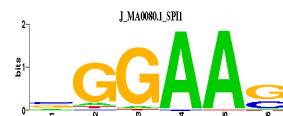


76

*forward**reverse complement*

| Name | E value | Alignment | Motif |
|------|---------|-----------|-------|
|------|---------|-----------|-------|

|                 |            |                      |                 |
|-----------------|------------|----------------------|-----------------|
| J_MA0080.1_SPI1 | 1.1411e-03 | CTGGGNAG<br>--NGGAAS | J_MA0080.1_SPI1 |
|-----------------|------------|----------------------|-----------------|

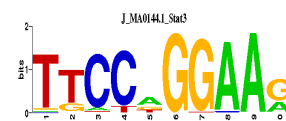


|                 |            |                      |                 |
|-----------------|------------|----------------------|-----------------|
| J_MA0282.1_CEP3 | 1.1578e-03 | CTNCCCAG<br>NTTCCGAR | J_MA0282.1_CEP3 |
|-----------------|------------|----------------------|-----------------|



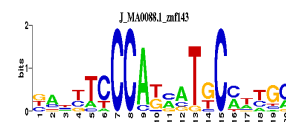
J\_MA0144.1\_Stat3 1.6538e-03

--CTGGGNAG  
TTCCNGGAAG



J\_MA0088.1\_znf143 2.0239e-03

-----CTGGGNAG--  
KCNNKGMANNMTGGGANNNN

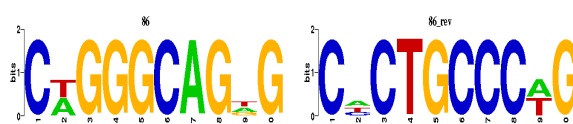


J\_MA0344.1\_NHP10 2.0848e-03

CTNCCCAG--  
-TCCCCGGN

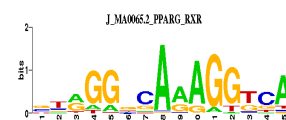


86

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0065.2\_PPARG\_RXR 1.9400e-04

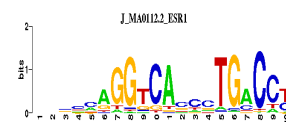
----CNCTGCCCWG--  
TGMCCTTTGNCCYNN



J\_MA0112.2\_ESR1

2.0789e-03

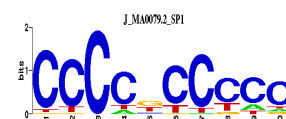
CWGGGCAGNG-----  
-RGGTCANNNTGACCTNNNNN



J\_MA0079.2\_SP1

2.0804e-03

CWGGGCAGNG  
GGGGGNGGGG



J\_MA0283.1\_CHA4

2.1951e-03

-CNCTGCCCWG  
NCTCCGCC---



J\_MA0364.1\_REI1

5.3589e-03

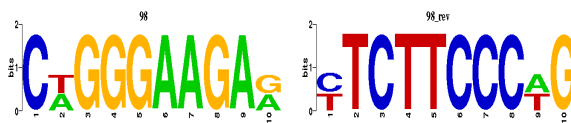
-CWGGGCAGNG  
NCAGGGG----



98

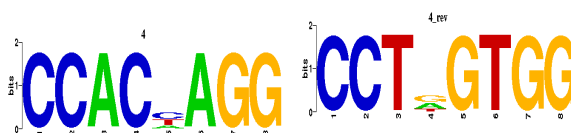
## Stamp Results

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*forward**reverse compliment*

| <i>Name</i>        | <i>E value</i> | <i>Alignment</i>          | <i>Motif</i> |
|--------------------|----------------|---------------------------|--------------|
| J_MA0062.1_GABPA   | 1.0157e-04     | YTCTTCCCWG<br>SNCTTCCGGT  |              |
| J_MA0080.1_SPI1    | 1.5380e-04     | YTCTTCCCWG<br>--STTCN--   |              |
| J_MA0305.1_GCR2    | 6.7460e-04     | CWGGGAAGAR<br>--NGGAAGC-- |              |
| J_MA0080.2_SPI1    | 7.2331e-04     | CWGGGAAGAR<br>--AGGAAGT-- |              |
| J_MA0026.1_Eip74EF | 1.1287e-03     | YTCTTCCCWG<br>--YTTCCGG-- |              |

4

*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|-----------------|----------------|-------------------------------------------|--------------|
| J_MA0139.1_CTCF | 4.8229e-09     | -----CCTNGTGG-----<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0193.1_Lag1 | 1.6059e-05     | CCTNGTGG<br>--TTGGTRG                     |              |

## Stamp Results

11/21/15

J\_MA0373.1\_RPN4 5.2089e-04

--CCACNAGG  
CGCCACC---



J\_MA0018.1\_CREB1 1.1843e-03

----CCACNAGG  
NACGTCANCMNN

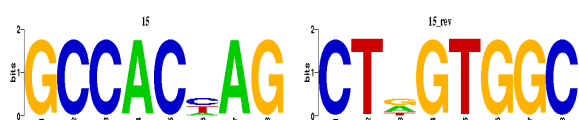


J\_MA0086.1\_sna 1.2498e-03

CCACNAGG  
-CACCTG-



15

*forward**reverse compliment**Name**E value**Alignment**Motif*

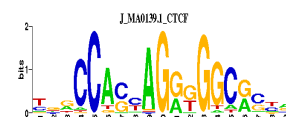
J\_MA0373.1\_RPN4 6.1835e-07

-GCCACYAG  
CGCCACC--



J\_MA0139.1\_CTCF 2.5385e-06

-----CTRGTGGC--  
NNSYGCCMCCTRSTGGNNR



J\_MA0193.1\_Lag1 1.3124e-05

CTRGTGGC  
TTGGTRG-



J\_MA0334.1\_MET32 1.6926e-04

CTRGTGGC-  
--TGTTGCN

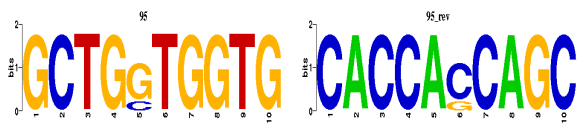


J\_MA0027.1\_En1 1.0135e-03

--CTRGTGGC-  
NNGTNGTNNNN



95

*forward**reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|-----------------|----------------|-----------------------------------------|--------------|
| J_MA0402.1_SWI5 | 2.5095e-05     | CACCACCAGC--<br>---NACCAGCA             |              |
| J_MA0373.1_RPN4 | 2.5575e-05     | CACCACCAGC<br>CGCCACC---                |              |
| J_MA0193.1_Lag1 | 1.3565e-04     | GCTGGTGGTG<br>-TTGGTRG--                |              |
| J_MA0139.1_CTCF | 3.0019e-04     | -----GCTGGTGGTG-<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0055.1_Myf  | 3.4850e-04     | CACCACCAGC--<br>CAGCAGYTGCYK            |              |

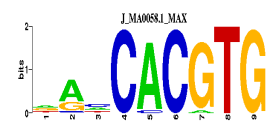


46

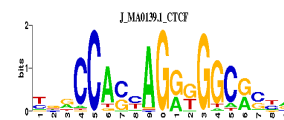
*forward**reverse compliment*

| <i>Name</i>        | <i>E value</i> | <i>Alignment</i>           | <i>Motif</i> |
|--------------------|----------------|----------------------------|--------------|
| J_MA0086.1_sna     | 2.0423e-07     | CACCWGGT<br>CACCTG--       |              |
| J_MA0059.1_MYC_MAX | 1.3532e-05     | ---CACCWGGT<br>NASCACGTGGT |              |

J\_MA0058.1\_MAX 3.7355e-05

-CACCWGGT-  
NCACGTGNTN

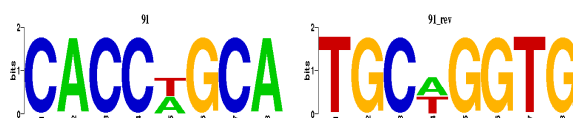
J\_MA0139.1\_CTCF 4.7733e-05

-----ACCWGGTG-----  
NNSYGCCMCCTRSTGGNNR

J\_MA0103.1\_ZEB1 3.8863e-04

ACCWGGTG  
--NAGGTG

91

*forward**reverse compliment**Name**E value**Alignment**Motif*

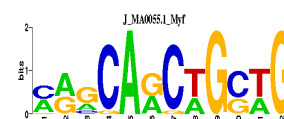
J\_MA0402.1\_SWI5 3.9167e-08

CACCWGCA  
NACCAGCA

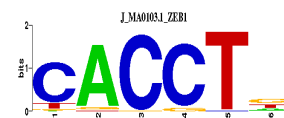
J\_MA0086.1\_sna 1.2421e-07

CACCWGCA  
CACCTG--

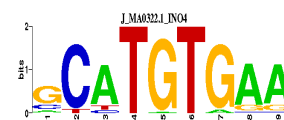
J\_MA0055.1\_Myf 2.0942e-04

CACCWGCA----  
CAGCAGYTGCK

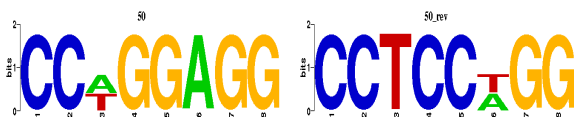
J\_MA0103.1\_ZEB1 2.7296e-04

TGCWGGTG  
--NAGGTG

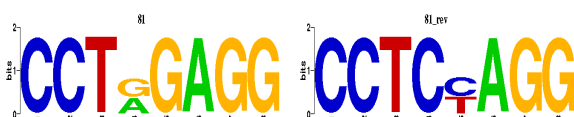
J\_MA0322.1\_INO4 3.4590e-04

--CACCWGCA  
TTCACATGC-

50

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|------------------|----------------|-----------------------------------------|--------------|
| J_MA0144.1_Stat3 | 2.8908e-06     | --CCWGGAGG<br>TTCCNGGAAG                |              |
| J_MA0155.1_INSM1 | 2.6043e-04     | --CCWGGAGG--<br>TGYCAGGGGGCR            |              |
| J_MA0086.1_sna   | 1.4304e-03     | CCTCCWGG<br>-CACCTG-                    |              |
| J_MA0139.1_CTCF  | 1.5950e-03     | -----CCWGGAGG---<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0154.1_EBF1  | 3.4880e-03     | --CCWGGAGG<br>TCCCTNGGNN                |              |



81

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                        | <i>Motif</i> |
|------------------|----------------|-----------------------------------------|--------------|
| J_MA0139.1_CTCF  | 3.6310e-05     | -----CCTRGAGG---<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0144.1_Stat3 | 1.2127e-04     | CCTCYAGG---<br>-TTCCNGGAAG              |              |

J\_MA0451.1\_kni 7.2945e-04

--CCTCYAGG--  
NTGCTCTANTTT



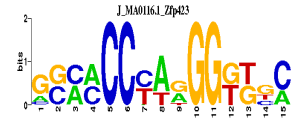
J\_MA0154.1\_EBF1 8.9578e-04

--CCTRGAGG  
TCCCTNGGGN

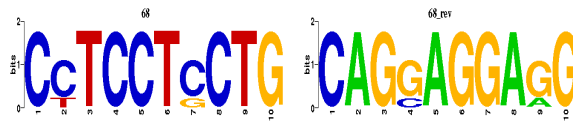


J\_MA0116.1\_Zfp423 2.2760e-03

-----CCTRGAGG--  
GNMMCCYTRGGKKSC

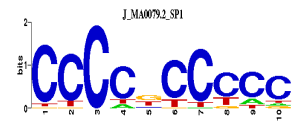


68

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0079.2\_SP1 5.9438e-05

CAGGAGGAGG--  
--GGGGNGGGG



J\_MA0062.1\_GABPA 1.6555e-04

-CAGGAGGAGG  
ACCGAAGNS-



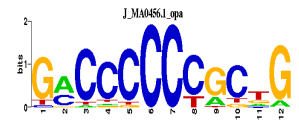
J\_MA0283.1\_CHA4 2.2445e-04

CCTCCTCCTG  
NCTCCGCC--



J\_MA0456.1\_opa 2.4227e-04

CAGGAGGAGG--  
CNGCGGGGGKGC

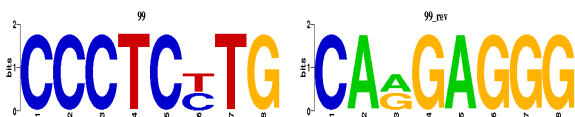


J\_MA0086.1\_sna 7.1734e-04

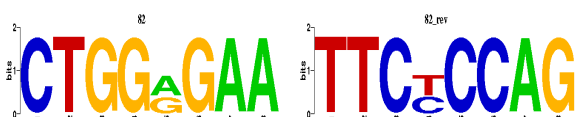
CCTCCTCCTG  
----CACCTG



99

*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                | <i>Motif</i> |
|------------------|----------------|---------------------------------|--------------|
| J_MA0163.1_PLAG1 | 1.2706e-04     | -----CARGAGGG<br>GGGGCCNAAGGGGG |              |
| J_MA0086.1_sna   | 1.4112e-03     | CCCTCYTG<br>--CACCTG            |              |
| J_MA0039.1_Klf4  | 1.4358e-03     | CCCTCYTG--<br>CCTTYYYTTN        |              |
| J_MA0366.1_RGM1  | 1.7687e-03     | CARGAGGG--<br>----AGGGG         |              |
| J_MA0342.1_MSN4  | 1.9583e-03     | -CCCTCYTG<br>CCCCT----          |              |



82

*forward**reverse compliment*

| <i>Name</i>        | <i>E value</i> | <i>Alignment</i>         | <i>Motif</i> |
|--------------------|----------------|--------------------------|--------------|
| J_MA0152.1_NFATC2  | 2.1635e-05     | CTGGRGAA<br>-TGAAAA      |              |
| J_MA0437.1_YPR196W | 2.3462e-05     | CTGGRGAA--<br>-CGGRNAAAT |              |

J\_MA0344.1\_NHP10 2.8298e-04

TTCYCCAG-  
-TCCCCGGN

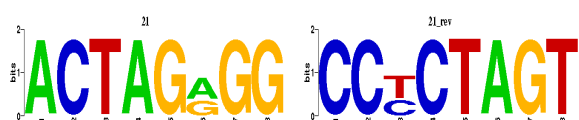
J\_MA0056.1\_MZF1\_1-4 5.9455e-04

TTCYCCAG  
-TCCCCN-

J\_MA0451.1\_kni 9.7639e-04

-TTCYCCAG---  
NTGCTCTANTTT

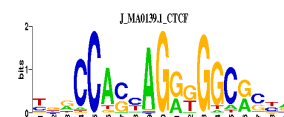
21

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0451.1\_kni 5.6863e-07

--CCYCTAGT--  
NTGCTCTANTTT

J\_MA0139.1\_CTCF 2.0598e-06

-----ACTAGRGG-----  
YNNCCASYAGGKGGCRSNN

J\_MA0372.1\_RPH1 1.0837e-04

ACTAGRGG-  
-TTAGGGGN

J\_MA0366.1\_RGM1 1.6262e-04

CCYCTAGT  
CCCCT---

J\_MA0342.1\_MSN4 1.6961e-04

CCYCTAGT  
CCCCT---

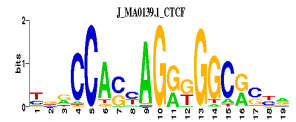
89

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0139.1\_CTCF

3.6253e-06

-----ACNAGAGG-----  
 YNNCCASYAGGKGGCRSNN



J\_MA0451.1\_kni

5.9158e-06

--CCTCTNGT--  
 NTGCTCTANTTT



J\_MA0247.1\_tin

3.0614e-04

-ACNAGAGG  
 CACTTGAR-



J\_MA0091.1\_TAL1\_TCF3

8.4493e-04

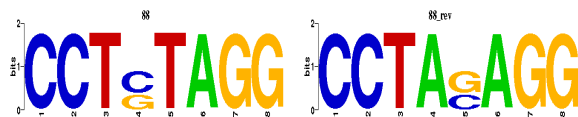
ACNAGAGG----  
 AMCAGATGKTNN



J\_MA0266.1\_ABF2

1.2416e-03

CCTCTNGT-  
 --TCTAGAN



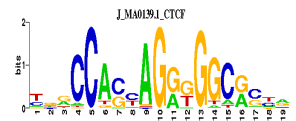
88

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0139.1\_CTCF

4.5231e-04

-----CCTASAGG---  
 NNSYGCCMCCTRSTGGNNR



J\_MA0451.1\_kni

5.3868e-04

--CCTSTAGG--  
 NTGCTCTANTTT



J\_MA0266.1\_ABF2 6.8325e-04

CCTSTAGG--  
--TCTAGAN

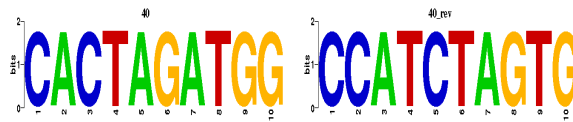
J\_MA0440.1\_ZAP1 1.0414e-03

-----CCTSTAGG--  
CATNACCTTKARGGT

J\_MA0081.1\_SPIB 1.5803e-03

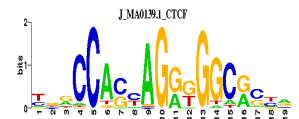
CCTASAGG--  
---ASMGGAA

40

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0139.1\_CTCF

7.6397e-07

----CACTAGATGG-----  
YNNCCASYAGGKGGCRSNN

J\_MA0091.1\_TAL1\_TCF3 2.1771e-05

---CCATCTAGTG  
NNAMCATCTGKT-

J\_MA0247.1\_tin

1.5425e-04

CCATCTAGTG  
--YTCAAGTG

J\_MA0266.1\_ABF2

6.6516e-04

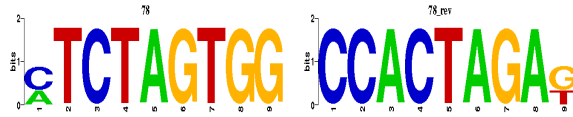
CCATCTAGTG  
---TCTAGAN

J\_MA0253.1\_vnd

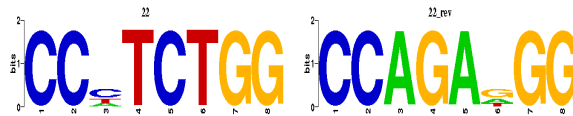
2.3079e-03

CACTAGATGG  
YACTTGARA-

78

*forward**reverse compliment*

| <i>Name</i>       | <i>E value</i> | <i>Alignment</i>                         | <i>Motif</i> |
|-------------------|----------------|------------------------------------------|--------------|
| J_MA0139.1_CTCF   | 6.9755e-07     | -----CTCTAGTGG---<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0247.1_tin    | 3.6936e-06     | CCACTAGAG<br>-CACTTGAR                   |              |
| J_MA0264.1_ceh-22 | 1.0688e-05     | -CTCTAGTGG-<br>NNTCAAGTGGN               |              |
| J_MA0451.1_kni    | 1.9094e-05     | ---CTCTAGTGG<br>NTGCTCTANTTT             |              |
| J_MA0266.1_ABF2   | 3.8176e-04     | CTCTAGTGG<br>-TCTAGAN-                   |              |



22

*forward**reverse compliment*

| <i>Name</i>          | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|----------------------|----------------|-------------------------------------------|--------------|
| J_MA0139.1_CTCF      | 5.6902e-06     | -----CCAGANGG-----<br>YNNCCASYAGGKGGCRSNN |              |
| J_MA0091.1_TAL1_TCF3 | 4.5971e-05     | ---CCNTCTGG-<br>NNAMCATCTGKT              |              |

J\_MA0332.1\_MET28 4.2064e-04

CCAGANGG  
CCACAG--

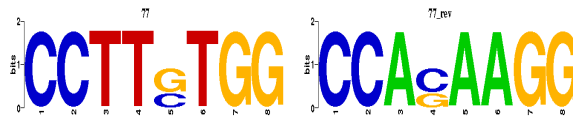
J\_MA0370.1\_RME1 6.7394e-04

-CCNTCTGG-  
TNCCTTTNNA

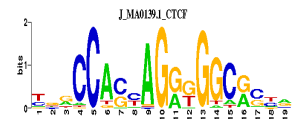
J\_MA0155.1\_INSM1 8.2050e-04

--CCNTCTGG--  
YGCCCCCTGRCA

77

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0139.1\_CTCF 3.1811e-05

-----CCTTSTGG---  
NNSYGCCMCCTRSTGGNNR

J\_MA0332.1\_MET28 7.0460e-05

CCASAAGG  
CCACAG--

J\_MA0002.1\_RUNX1 3.5062e-04

---CCASAAGG  
NAACCACARWW

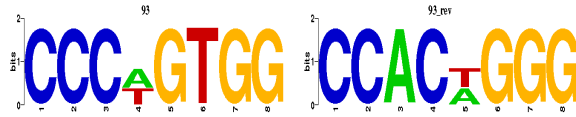
J\_MA0327.1\_MATA1 5.2244e-04

CCTTSTGG  
-ATTGTGY

J\_MA0334.1\_MET32 5.4514e-04

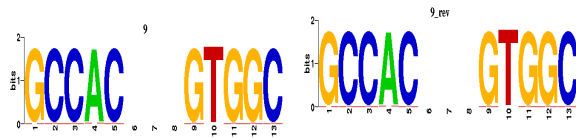
CCTTSTGG--  
---TGTGCCN

93

*forward**reverse compliment*

| <i>Name</i>       | <i>E value</i> | <i>Alignment</i>               | <i>Motif</i> |
|-------------------|----------------|--------------------------------|--------------|
| J_MA0332.1_MET28  | 4.1004e-07     | CCACWGGG<br>CCACAG--           |              |
| J_MA0335.1_MET4   | 4.7836e-05     | CCACWGGG<br>CCACAGNT           |              |
| J_MA0154.1_EBF1   | 3.2033e-04     | ---CCWGTGG-<br>TCCCTNGGGN      |              |
| J_MA0002.2_RUNX1  | 9.2460e-04     | ---CCACWGGG<br>NAACCACARNN     |              |
| J_MA0116.1_Zfp423 | 1.5933e-03     | ----CCCWGTGG-<br>GSMCCYARGGKNC |              |

9

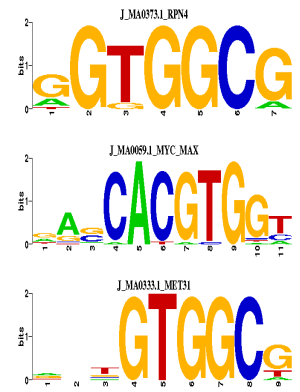
*forward**reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>                           | <i>Motif</i> |
|------------------|----------------|--------------------------------------------|--------------|
| J_MA0139.1_CTCF  | 6.3756e-05     | ----GCCACNNNGTGGC--<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0334.1_MET32 | 2.0019e-03     | GCCACNNNGTGGC-<br>-----TGTGGCN             |              |

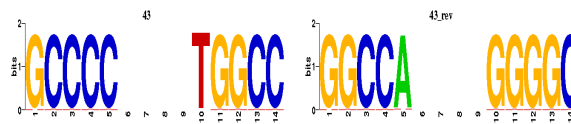
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|                    |            |                                  |
|--------------------|------------|----------------------------------|
| J_MA0373.1_RPN4    | 2.0588e-03 | -GCCACNNNGTGGC<br>CGCCACC-----   |
| J_MA0059.1_MYC_MAX | 1.7691e-02 | GCCACNNNGTGGC<br>ACCACGTGSTN--   |
| J_MA0333.1_MET31   | 2.3449e-02 | -GCCACNNNGTGGC<br>CGCCACNNN----- |



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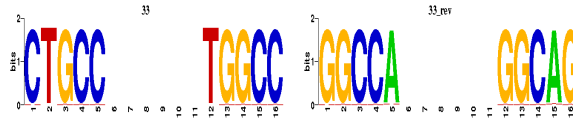
*forward**reverse complement*

| Name            | E value    | Alignment                                   | Motif |
|-----------------|------------|---------------------------------------------|-------|
| J_MA0139.1_CTCF | 8.0811e-04 | ----GCCCCNNNNTGGCC--<br>NNSYGCCMCCTRSTGGNNR |       |
| J_MA0381.1_SKN7 | 1.4467e-03 | GCCCCNNNNTGGCC<br>-----NYGGCC               |       |
| J_MA0163.1_PLA1 | 2.2336e-03 | --GCCANNNNGGGGC<br>GGGGCCNAAGGGG--          |       |
| J_MA0083.1_SRF  | 3.2413e-03 | GGCCANNNNGGGGC<br>--CCATATATGGGC            |       |
| J_MA0106.1_TP53 | 9.9954e-03 | ----GCCCCNNNNTGGCC--<br>ACATGCCCGGCATGTCCNN |       |

33

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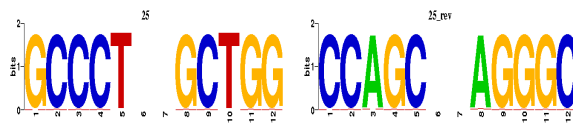


*forward*

*reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                              | <i>Motif</i> |
|-----------------|----------------|-----------------------------------------------|--------------|
| J_MA0381.1_SKN7 | 1.9767e-03     | CTGCCNNNNNNNTGGCC<br>-----NYGGCC              |              |
| J_MA0106.1_TP53 | 1.1856e-02     | --GGCCANNNNNNNGGCAG--<br>NNGGACATGCCCGGGCATGT |              |
| J_MA0083.1_SRF  | 2.9740e-02     | GGCCANNNNNNNGGCAG<br>--CCATATATGGGC--         |              |
| J_MA0161.1_NFIC | 4.7052e-02     | CTGCCNNNNNNNTGGCC<br>-----TTGGCN              |              |
| J_MA0139.1_CTCF | 4.8832e-02     | --CTGCCNNNNNNNTGGCC--<br>NNSYGCCMCCTRSTGGNNR  |              |

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*forward*

*reverse compliment*

| <i>Name</i>     | <i>E value</i> | <i>Alignment</i>                          | <i>Motif</i> |
|-----------------|----------------|-------------------------------------------|--------------|
| J_MA0139.1_CTCF | 7.8292e-06     | ----GCCCTNNGCTGG--<br>NNSYGCCMCCTRSTGGNNR |              |
| J_MA0456.1_opa  | 5.4034e-04     | CCAGCINNAGGGC--<br>-CNGCGGGGGGKC          |              |

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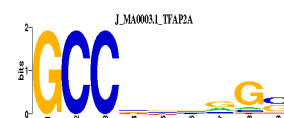
J\_MA0267.1\_ACE2 1.6178e-03

GCCCTNNGCTGG--  
-----NGCTGGN

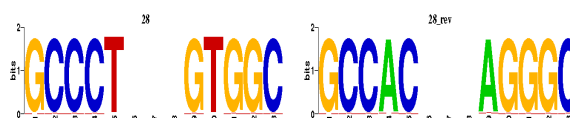
J\_MA0083.1\_SRF 2.2312e-03

CCAGCNNAGGGC  
CCATATATGGGC

J\_MA0003.1\_TFAP2A 3.2670e-03

CCAGCNNAGGGC  
---SCNNNNGGC

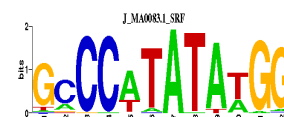
28

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0139.1\_CTCF 1.0499e-04

----GCCCTNNNGTGGC--  
NNSYGCCMCCTRSTGGNNR

J\_MA0083.1\_SRF 1.0385e-03

GCCACNNNAGGGC  
-CCATATATGGGC

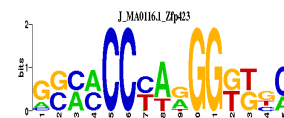
J\_MA0334.1\_MET32 2.0019e-03

GCCCTNNNGTGGC--  
-----TGTGGCN

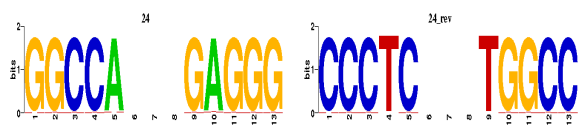
J\_MA0373.1\_RPN4 2.0588e-03

-GCCACNNNAGGGC  
CGCCACC-----

J\_MA0116.1\_Zfp423 2.4691e-03

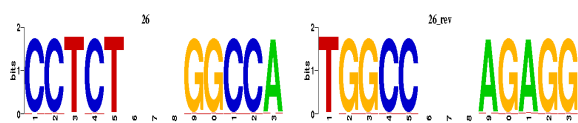
GCCACNNNAGGGC--  
GNMMCCYTRGGKSC

24

*forward**reverse compliment*

| Name             | E value    | Alignment                                   | Motif |
|------------------|------------|---------------------------------------------|-------|
| J_MA0381.1_SKN7  | 1.1558e-03 | CCCTC>NNNTGGCC<br>-----NYGGCC               |       |
| J_MA0139.1_CTCF  | 2.7941e-03 | -----CCCTC>NNNTGGCC-<br>NNSYGCCMCCTRSTGGNNR |       |
| J_MA0163.1_PLAG1 | 3.9464e-03 | --GGCCANNNGAGGG<br>GGGGCCNAAGGGGG--         |       |
| J_MA0366.1_RGM1  | 8.5409e-03 | -CCCTC>NNNTGGCC<br>CCCCT-----               |       |
| J_MA0342.1_MSN4  | 9.3196e-03 | GGCCANNNGAGGG-<br>-----AGGGG                |       |

26

*forward**reverse compliment*

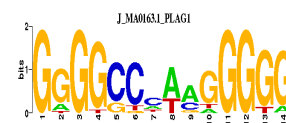
| Name             | E value    | Alignment                       | Motif |
|------------------|------------|---------------------------------|-------|
| J_MA0381.1_SKN7  | 1.1558e-03 | -TGGCC>NNNAGAGG<br>NYGGCC-----  |       |
| J_MA0062.1_GABPA | 4.5447e-03 | CCTCT>NNNGGCCA<br>-SNCTTCCGGT-- |       |

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J\_MA0163.1\_PLAG1 7.1218e-03

—TGGCCNNNAGAGG  
GGGGCCNAAGGGGG



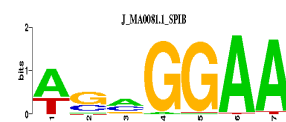
J\_MA0323.1\_IXR1 9.7666e-03

--CCTCTNNNGGCCA  
CMCCGCTTCCGGYTT

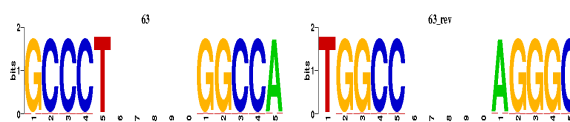


J\_MA0081.1\_SPIB 1.4696e-02

--CCTCTNNNGGCCA  
TTCKST-----



63

*forward**reverse compliment**Name**E value**Alignment**Motif*

J\_MA0381.1\_SKN7 1.8510e-03

—TGGCCNNNNNAGGGC  
NYGGC-----



J\_MA0366.1\_RGM1 1.2398e-02

GCCCTNNNNNGGCCA  
CCCCT-----



J\_MA0342.1\_MSN4 1.3480e-02

TGGCCNNNNNAGGGC  
-----AGGGG



J\_MA0083.1\_SRF 1.4777e-02

TGGCCNNNNNAGGGC  
---CCATATATGGGC



J\_MA0341.1\_MSN2 2.2613e-02

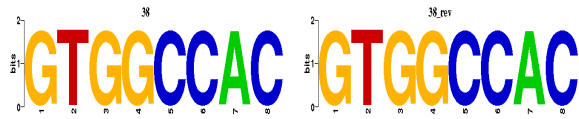
GCCCTNNNNNGGCCA  
CCCCT-----



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# Stamp Results

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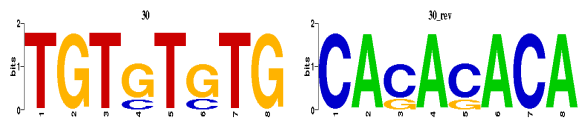


*forward*

*reverse compliment*

| <i>Name</i>        | <i>E value</i> | <i>Alignment</i>                | <i>Motif</i> |
|--------------------|----------------|---------------------------------|--------------|
| J_MA0381.1_SKN7    | 1.3090e-04     | GTGGCCAC<br>NYGGCC--            |              |
| J_MA0334.1_MET32   | 1.6926e-04     | -GTGGCCAC<br>TGTGGCN--          |              |
| J_MA0373.1_RPN4    | 1.7519e-04     | GTGGCCAC-<br>--CGCCACC          |              |
| J_MA0097.1_bZIP911 | 1.8143e-04     | GTGGCCAC-----<br>--GGCCACGTCAYC |              |
| J_MA0365.1_RFX1    | 2.9046e-04     | -GTGGCCAC<br>NGTTGCTA-          |              |

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*forward*

*reverse compliment*

| <i>Name</i>      | <i>E value</i> | <i>Alignment</i>           | <i>Motif</i> |
|------------------|----------------|----------------------------|--------------|
| J_MA0009.1_T     | 1.7876e-03     | --CACACACA-<br>TTCACACCTAG |              |
| J_MA0327.1_MATA1 | 2.1181e-03     | --TGTGTGTG<br>ATTGTGY---   |              |

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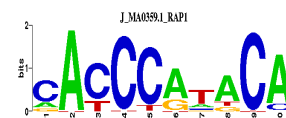
J\_MA0288.1\_CUP9 3.1321e-03

--TGTGTGTG  
WWTGTGTCA-



J\_MA0359.1\_RAP1 3.2107e-03

--TGTGTGTG  
TGTATGGGTG



J\_MA0099.1\_Fos 7.3286e-03

-CACACACA  
TGANTCAC-




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