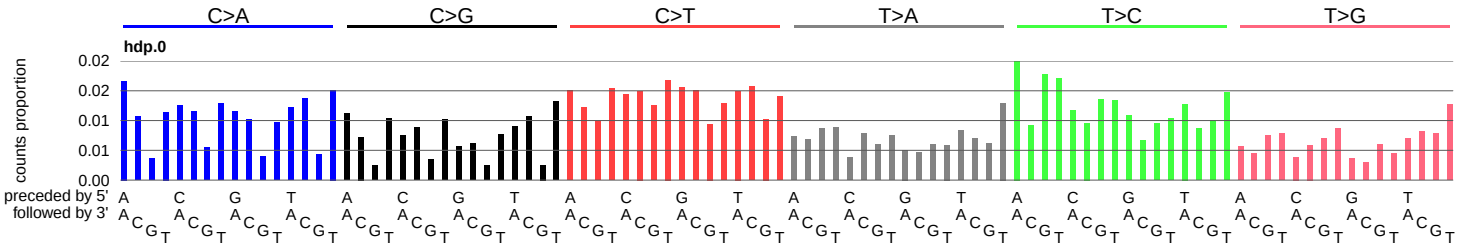
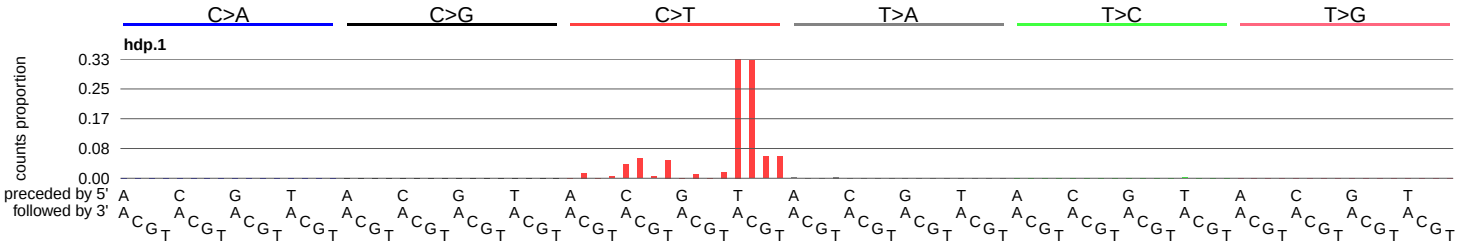
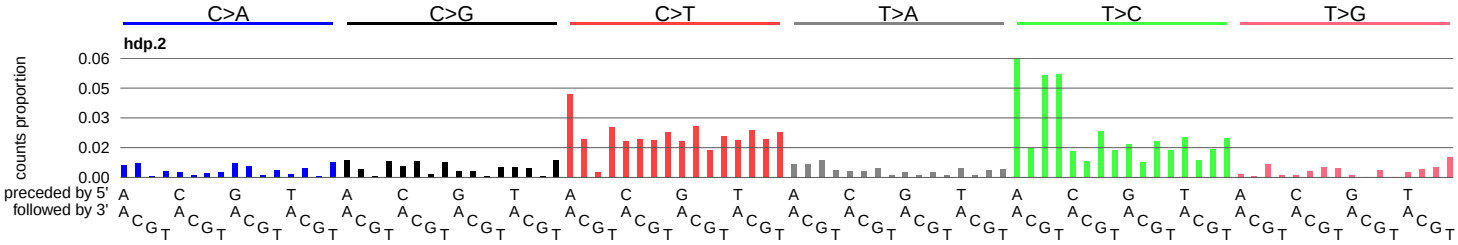
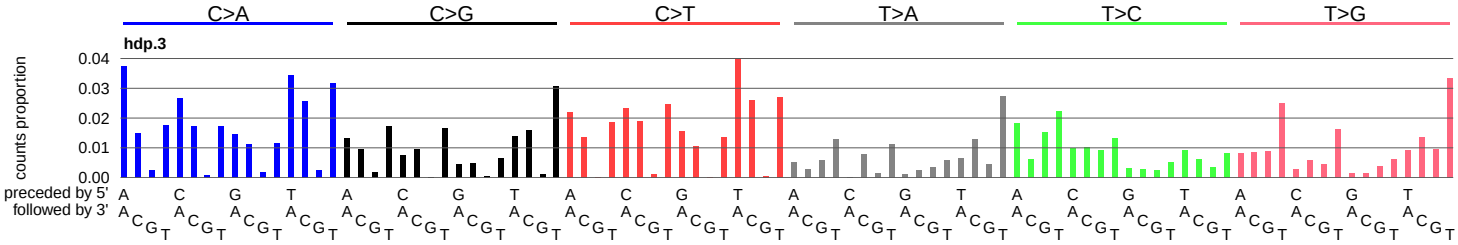
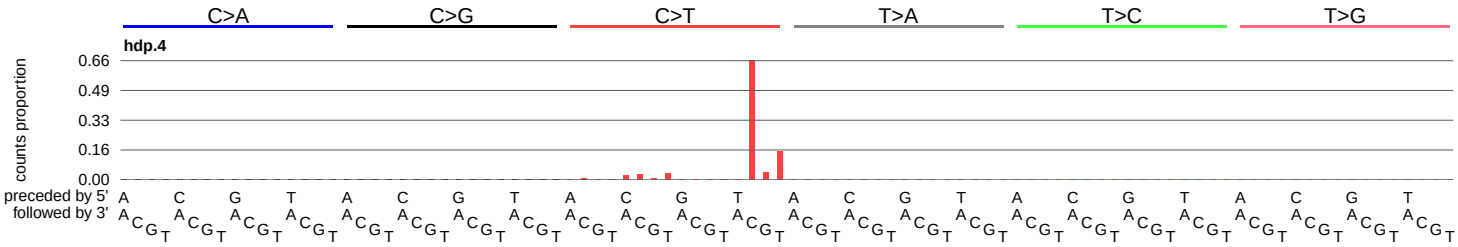
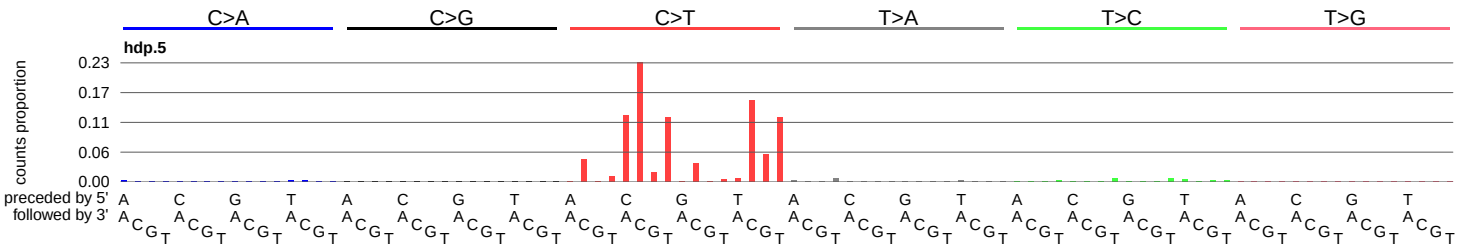

C>A
C>G
C>T
T>A
T>C
T>G
hdp.0
counts proportion
0.02
0.02
0.01
0.01
0.00
preceded by 5'
followed by 3'

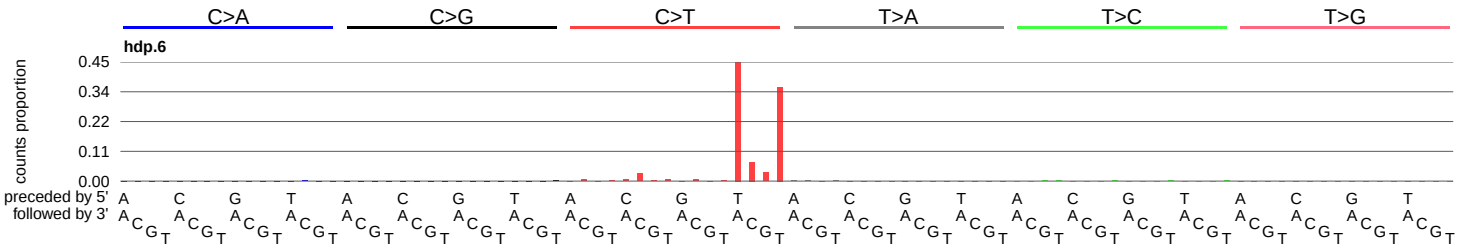

C>A
C>G
C>T
T>A
T>C
T>G
hdp.1
counts proportion
0.33
0.25
0.17
0.08
0.00
preceded by 5'
followed by 3'

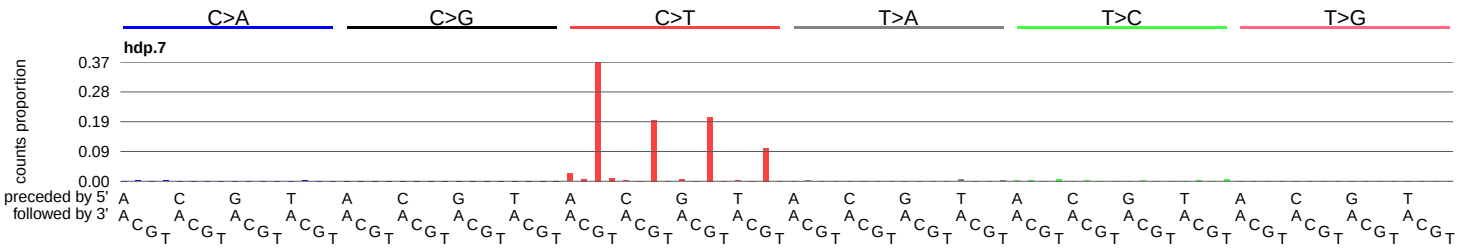

C>A
C>G
C>T
T>A
T>C
T>G
hdp.2
counts proportion
0.06
0.05
0.03
0.02
0.00
preceded by 5'
followed by 3'

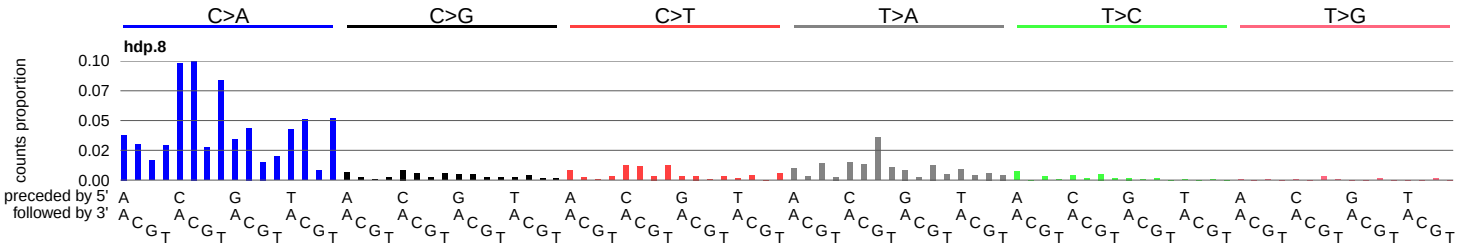

C>A
C>G
C>T
T>A
T>C
T>G
hdp.3
counts proportion
0.04
0.03
0.02
0.01
0.00
preceded by 5'
followed by 3'

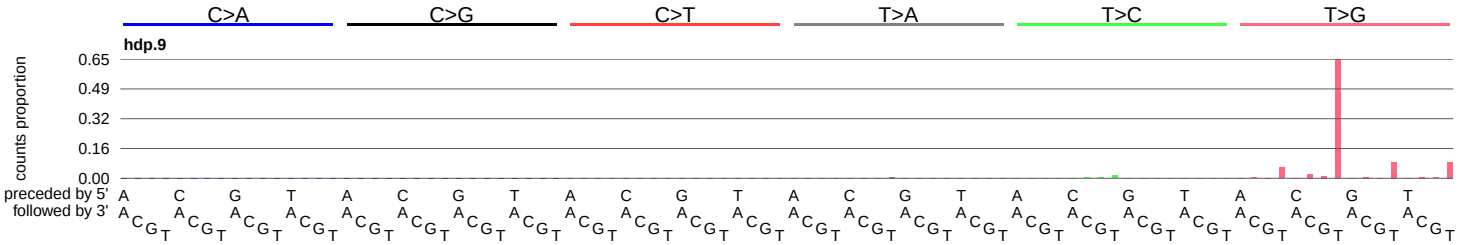

C>A
C>G
C>T
T>A
T>C
T>G
hdp.4
counts proportion
0.66
0.49
0.33
0.16
0.00
preceded by 5'
followed by 3'

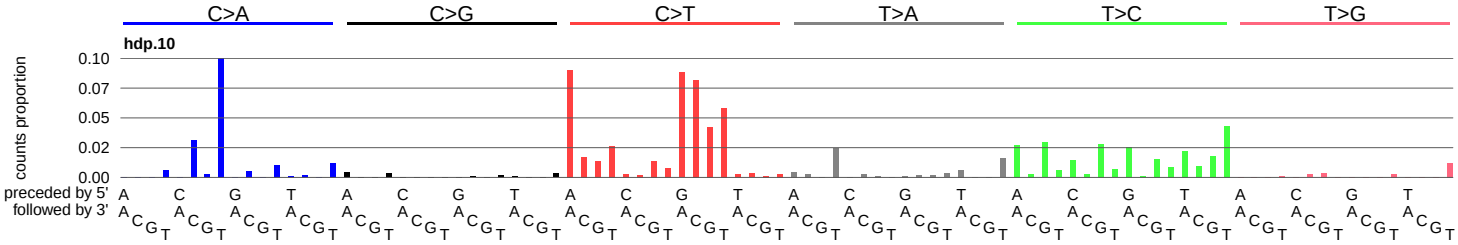

C>A
C>G
C>T
T>A
T>C
T>G
hdp.5
counts proportion
0.23
0.17
0.11
0.06
0.00
preceded by 5'
followed by 3'

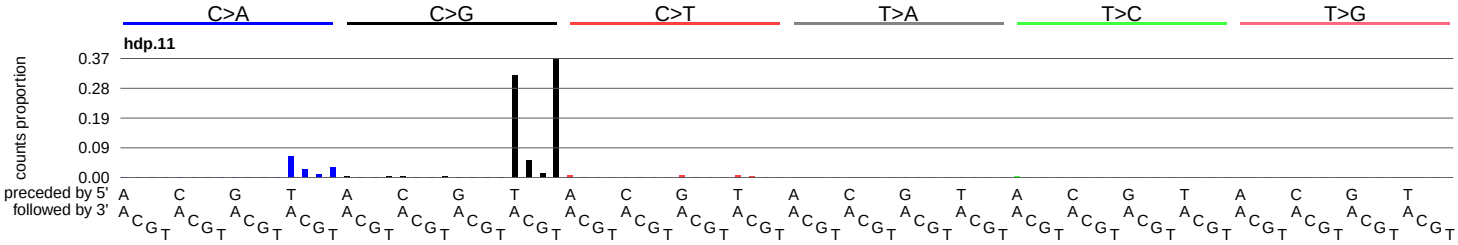

C>A
C>G
C>T
T>A
T>C
T>G
hdp.6
counts proportion
0.45
0.34
0.22
0.11
0.00
preceded by 5'
followed by 3'

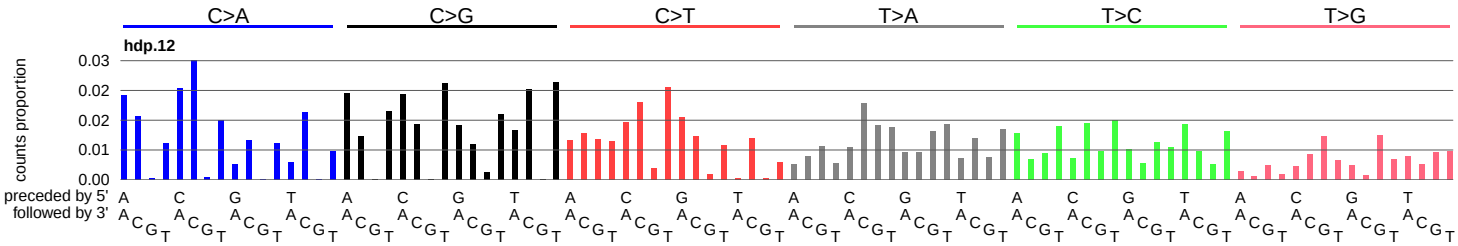

C>A
C>G
C>T
T>A
T>C
T>G
hdp.7
counts proportion
0.37
0.28
0.19
0.09
0.00
preceded by 5'
followed by 3'

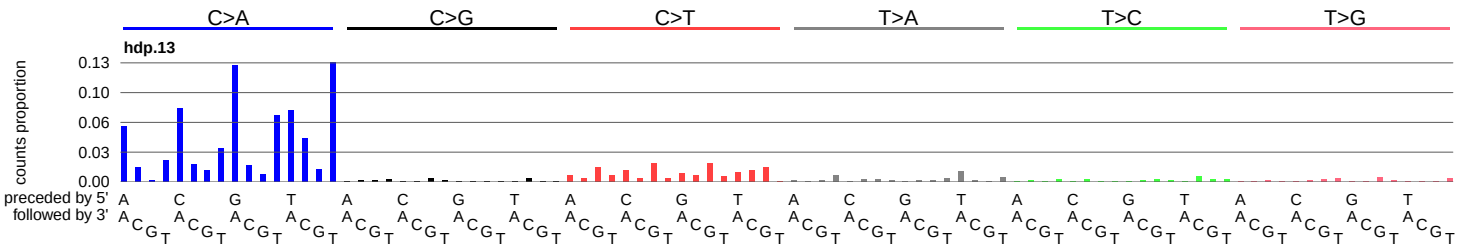

C>A
C>G
C>T
T>A
T>C
T>G
hdp.8
counts proportion
0.10
0.07
0.05
0.02
0.00
preceded by 5'
followed by 3'

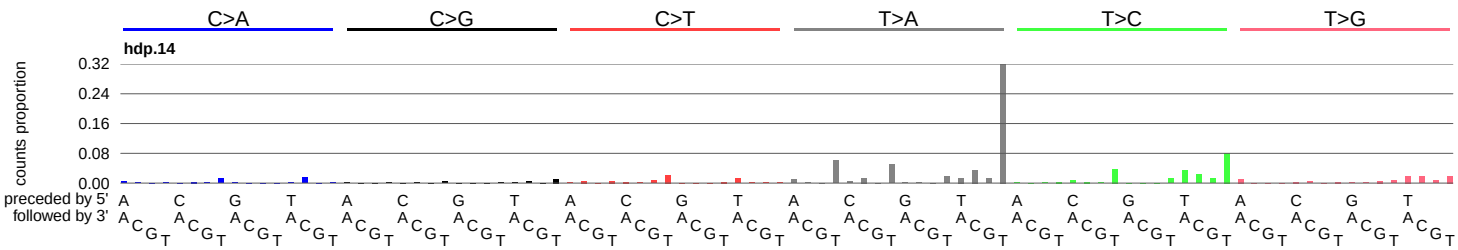

C>A
C>G
C>T
T>A
T>C
T>G
hdp.9
counts proportion
0.65
0.49
0.32
0.16
0.00
preceded by 5'
followed by 3'

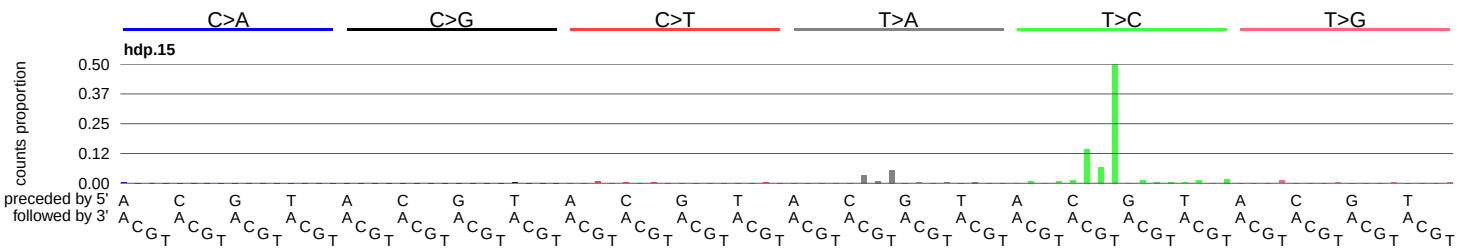

C>A
C>G
C>T
T>A
T>C
T>G
hdp.10
counts proportion
0.10
0.07
0.05
0.02
0.00
preceded by 5'
followed by 3'

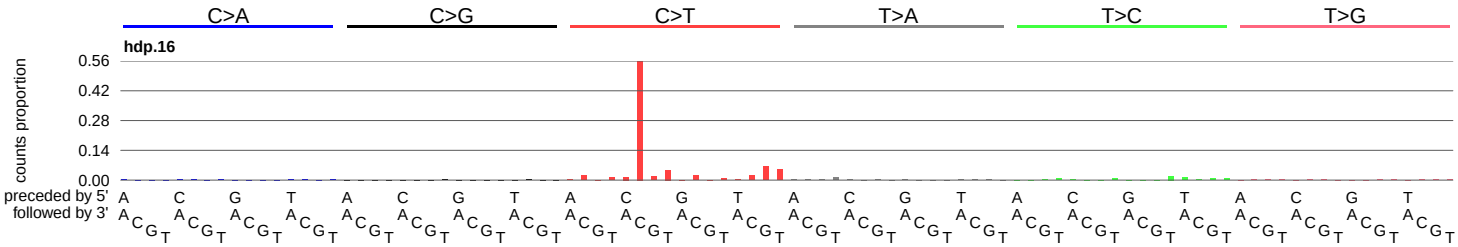

C>A
C>G
C>T
T>A
T>C
T>G
hdp.11
counts proportion
0.37
0.28
0.19
0.09
0.00
preceded by 5'
followed by 3'

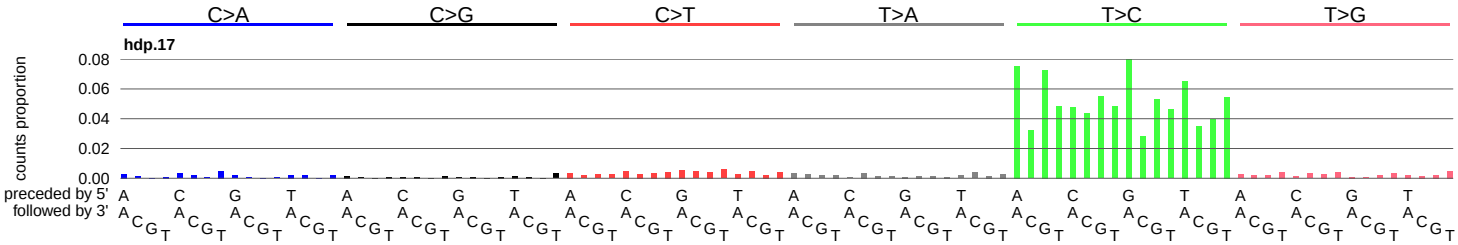

C>A
C>G
C>T
T>A
T>C
T>G
hdp.12
counts proportion
0.03
0.02
0.02
0.01
0.00
preceded by 5'
followed by 3'

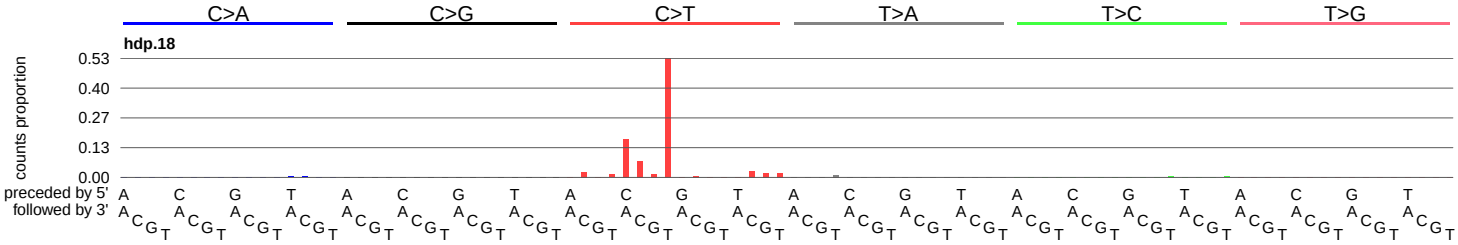

C>A
C>G
C>T
T>A
T>C
T>G
hdp.13
counts proportion
0.13
0.10
0.06
0.03
0.00
preceded by 5'
followed by 3'

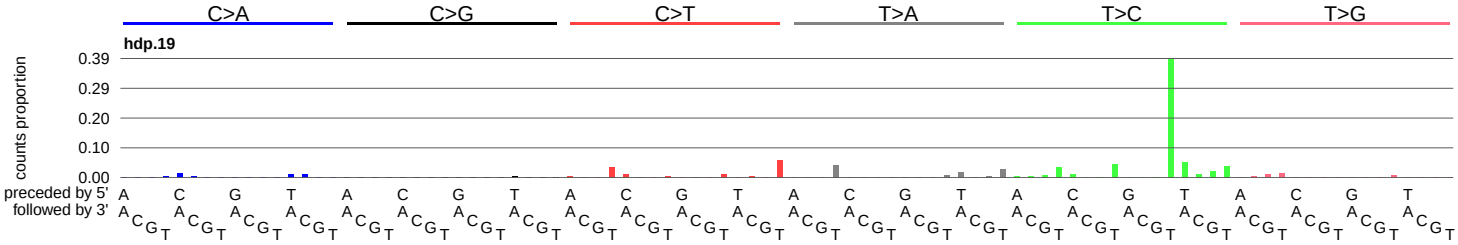

C>A
C>G
C>T
T>A
T>C
T>G
hdp.14
counts proportion
0.32
0.24
0.16
0.08
0.00
preceded by 5'
followed by 3'

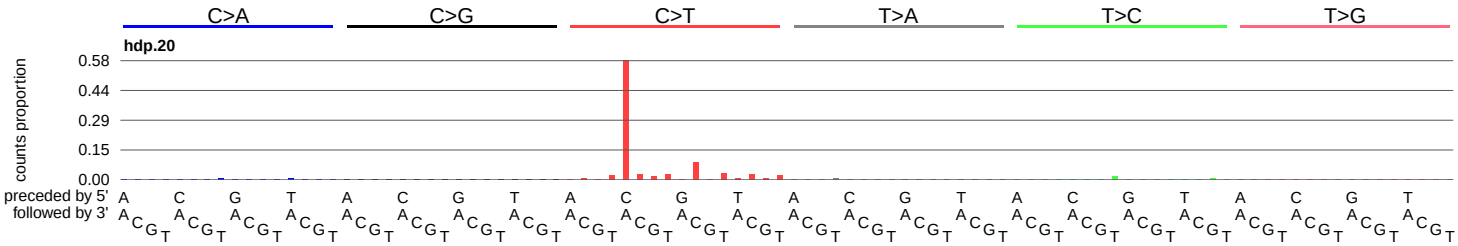

C>A
C>G
C>T
T>A
T>C
T>G
hdp.15
counts proportion
0.50
0.37
0.25
0.12
0.00
preceded by 5'
followed by 3'

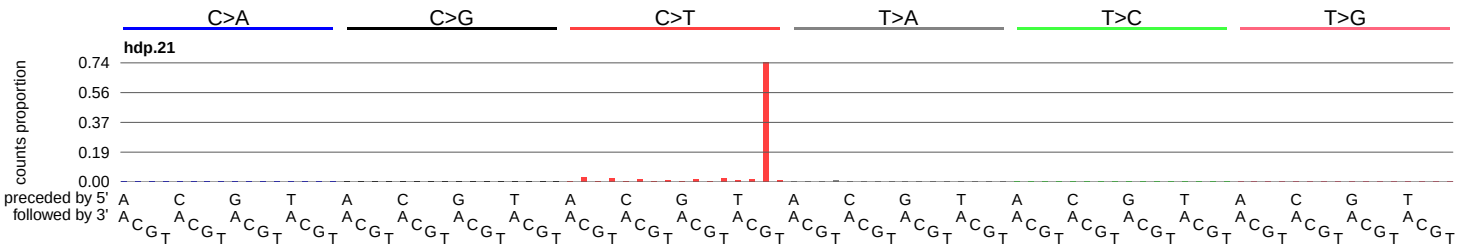

C>A
C>G
C>T
T>A
T>C
T>G
hdp.16
counts proportion
0.56
0.42
0.28
0.14
0.00
preceded by 5'
followed by 3'

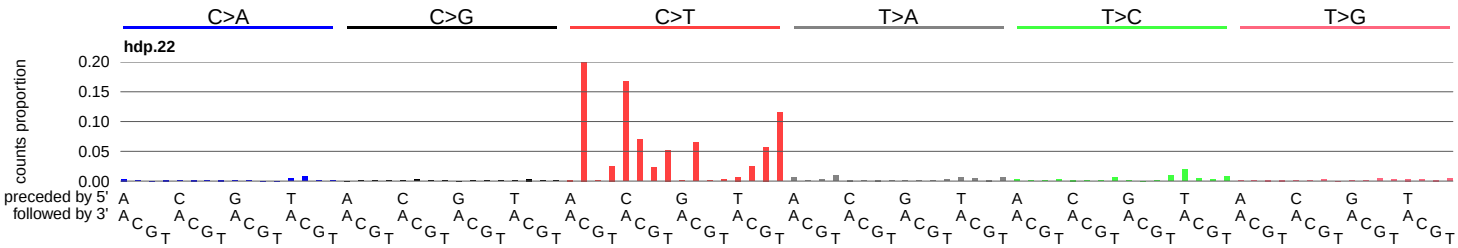

C>A
C>G
C>T
T>A
T>C
T>G
hdp.17
counts proportion
0.08
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

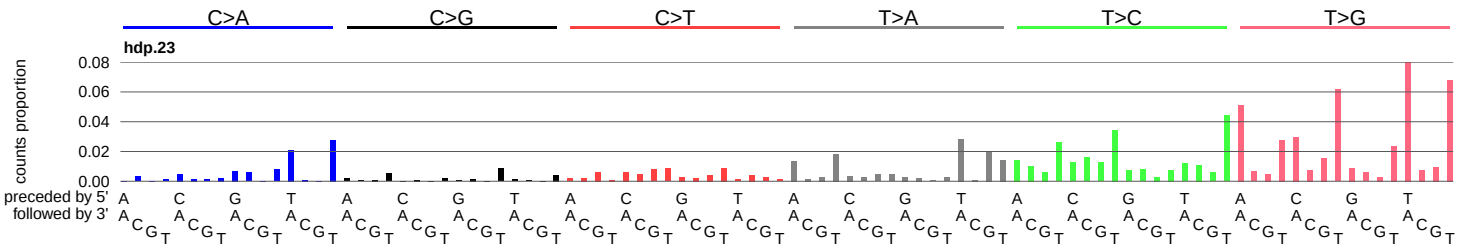

C>A
C>G
C>T
T>A
T>C
T>G
hdp.18
counts proportion
0.53
0.40
0.27
0.13
0.00
preceded by 5'
followed by 3'

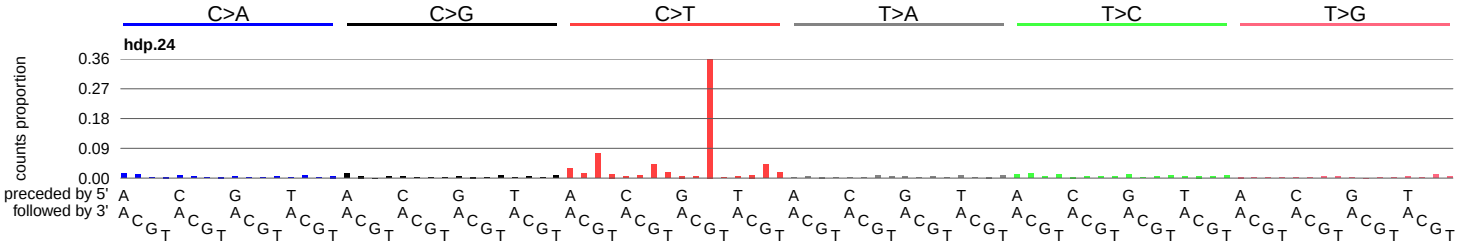

C>A
C>G
C>T
T>A
T>C
T>G
hdp.19
counts proportion
0.39
0.29
0.20
0.10
0.00
preceded by 5'
followed by 3'

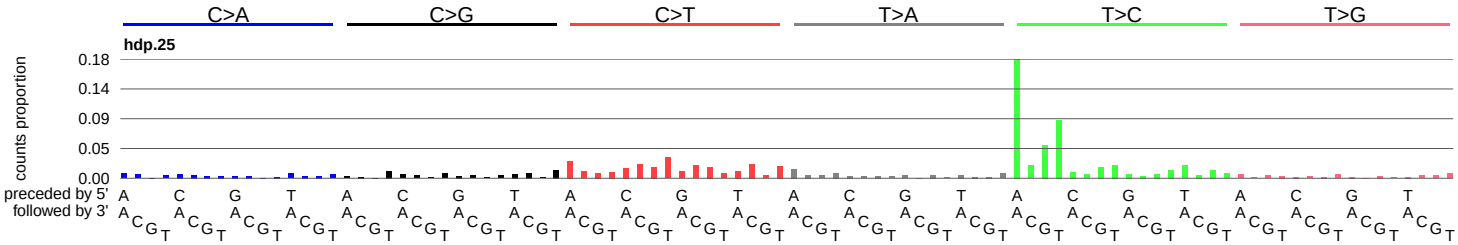

C>A
C>G
C>T
T>A
T>C
T>G
hdp.20
counts proportion
0.58
0.44
0.29
0.15
0.00
preceded by 5'
followed by 3'

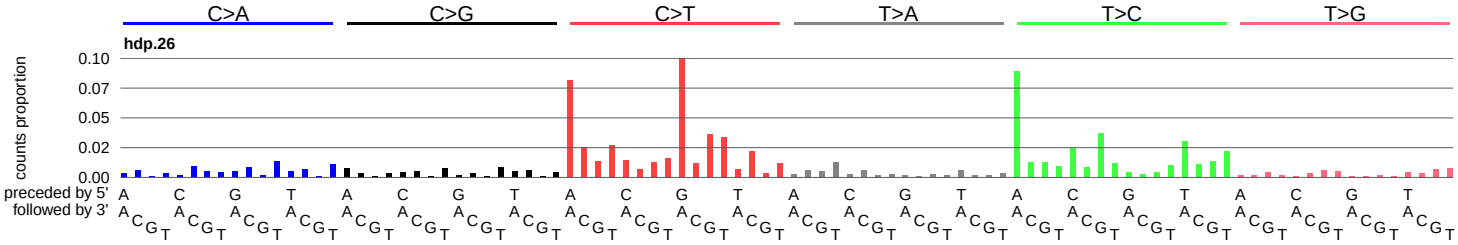

C>A
C>G
C>T
T>A
T>C
T>G
hdp.21
counts proportion
0.74
0.56
0.37
0.19
0.00
preceded by 5'
followed by 3'

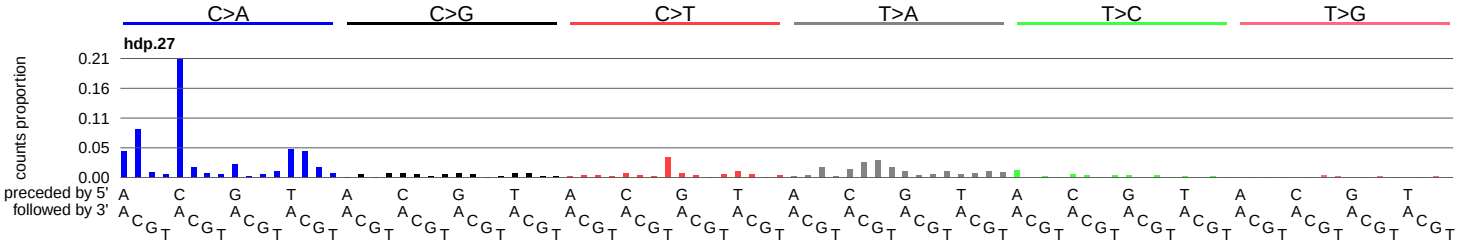

C>A
C>G
C>T
T>A
T>C
T>G
hdp.22
counts proportion
0.20
0.15
0.10
0.05
0.00
preceded by 5'
followed by 3'

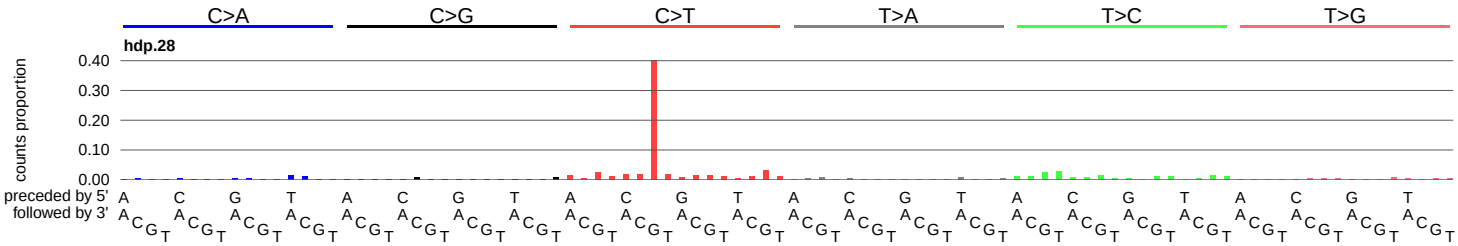

C>A
C>G
C>T
T>A
T>C
T>G
hdp.23
counts proportion
0.08
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

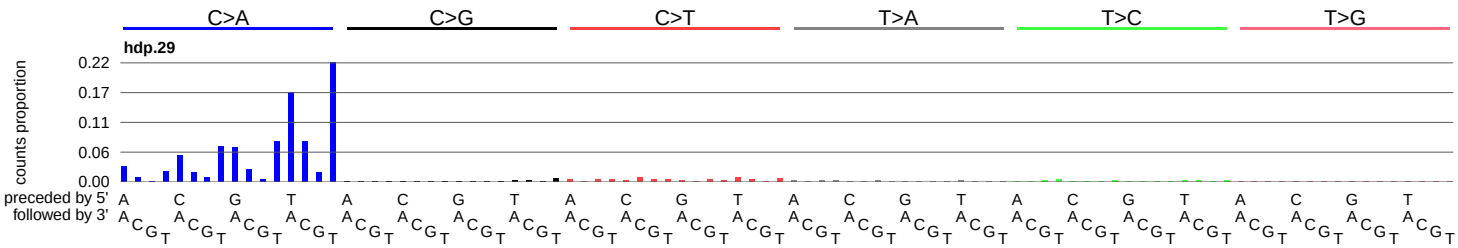

C>A
C>G
C>T
T>A
T>C
T>G
hdp.24
counts proportion
0.36
0.27
0.18
0.09
0.00
preceded by 5'
followed by 3'

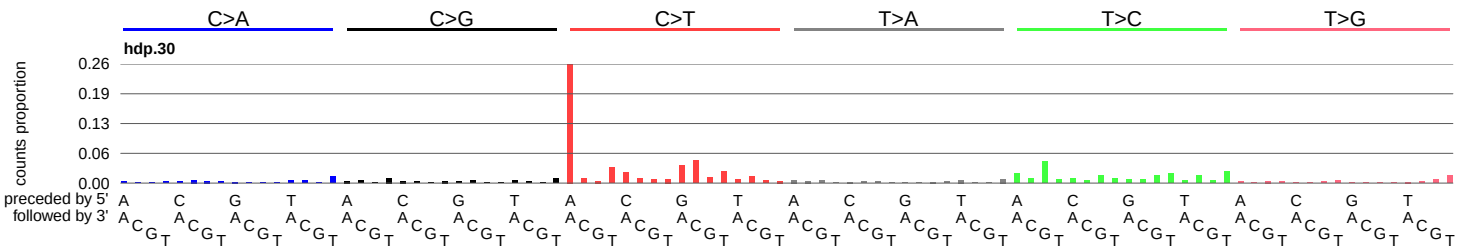

C>A
C>G
C>T
T>A
T>C
T>G
hdp.25
counts proportion
0.18
0.14
0.09
0.05
0.00
preceded by 5'
followed by 3'

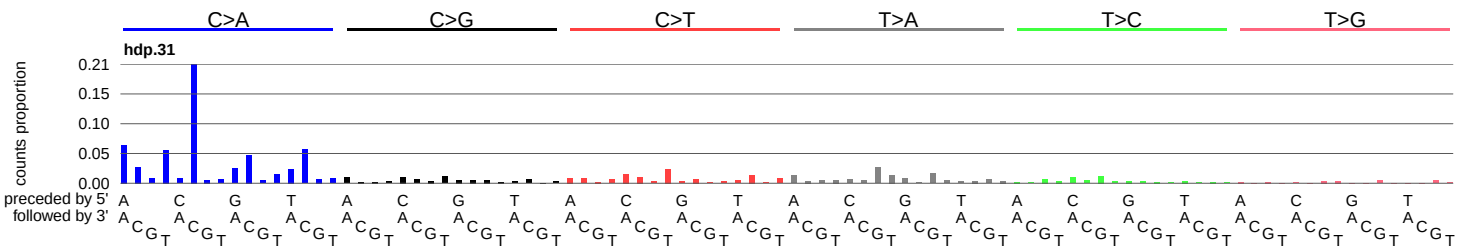

C>A
C>G
C>T
T>A
T>C
T>G
hdp.26
counts proportion
0.10
0.07
0.05
0.02
0.00
preceded by 5'
followed by 3'

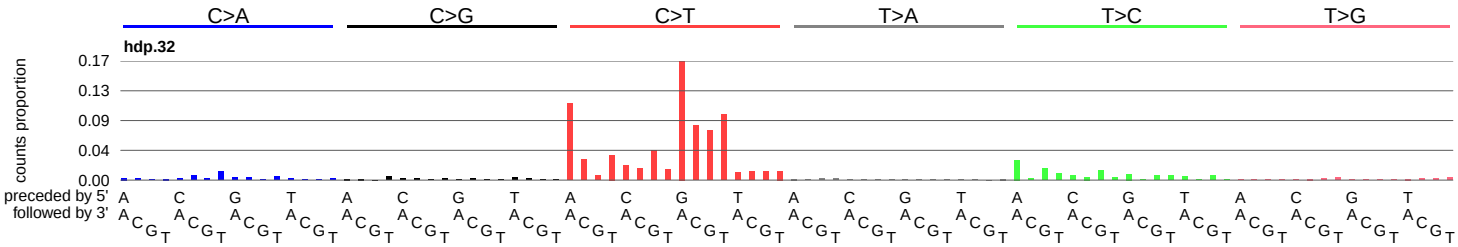

C>A
C>G
C>T
T>A
T>C
T>G
hdp.27
counts proportion
0.21
0.16
0.11
0.05
0.00
preceded by 5'
followed by 3'

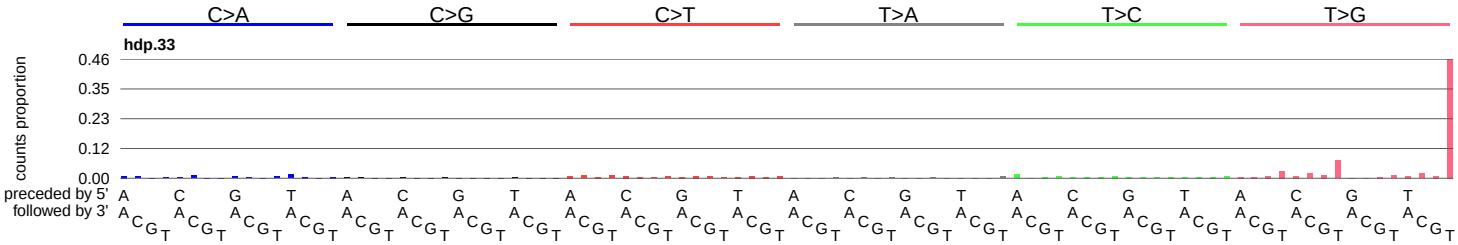

C>A
C>G
C>T
T>A
T>C
T>G
hdp.28
counts proportion
0.40
0.30
0.20
0.10
0.00
preceded by 5'
followed by 3'

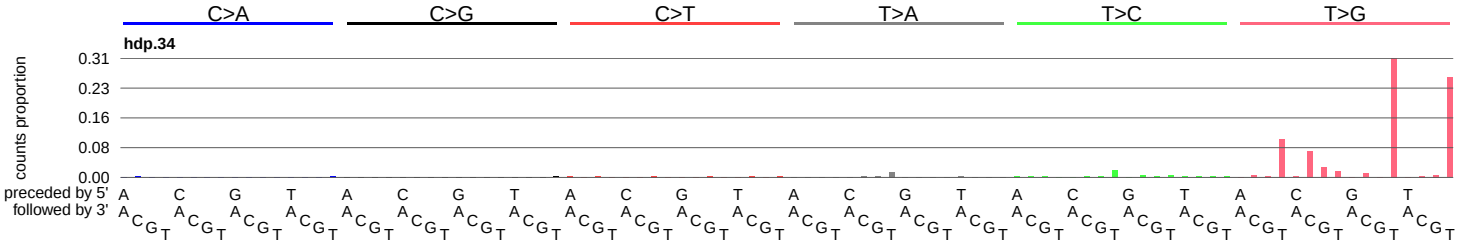

C>A
C>G
C>T
T>A
T>C
T>G
hdp.29
counts proportion
0.22
0.17
0.11
0.06
0.00
preceded by 5'
followed by 3'

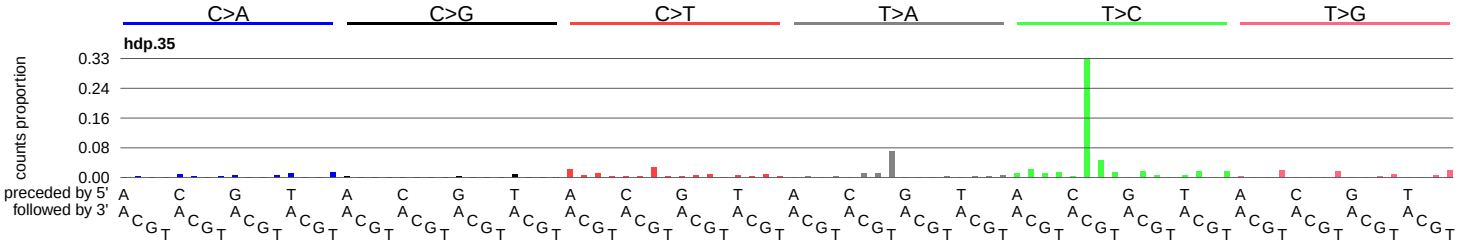

C>A
C>G
C>T
T>A
T>C
T>G
hdp.30
counts proportion
0.26
0.19
0.13
0.06
0.00
preceded by 5'
followed by 3'

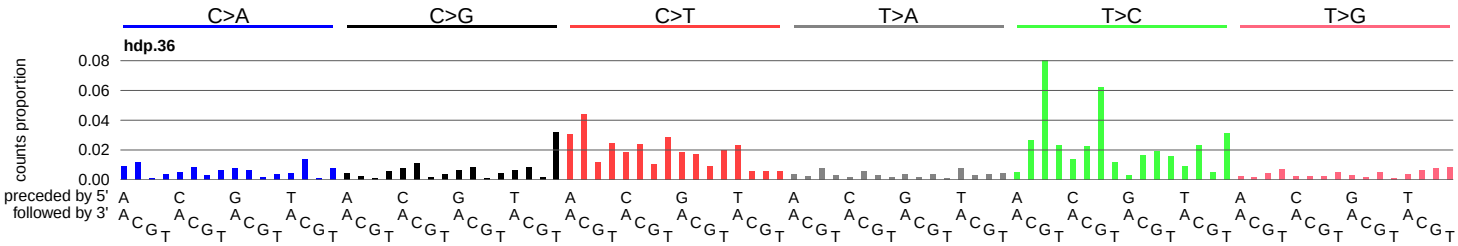

C>A
C>G
C>T
T>A
T>C
T>G
hdp.31
counts proportion
0.21
0.15
0.10
0.05
0.00
preceded by 5'
followed by 3'

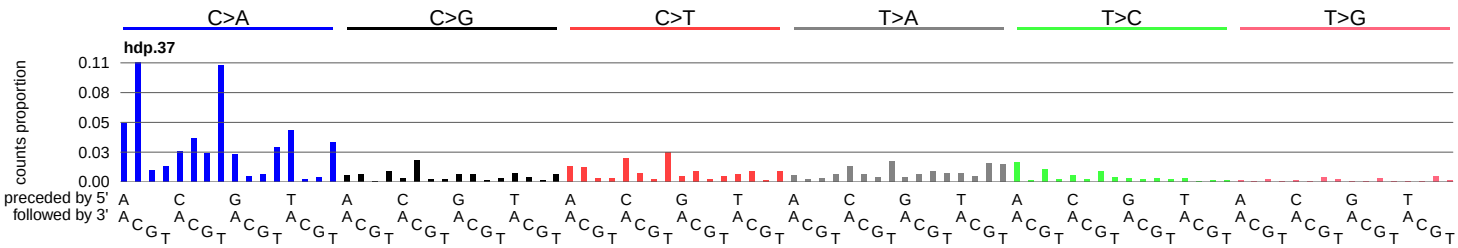

C>A
C>G
C>T
T>A
T>C
T>G
hdp.32
counts proportion
0.17
0.13
0.09
0.04
0.00
preceded by 5'
followed by 3'

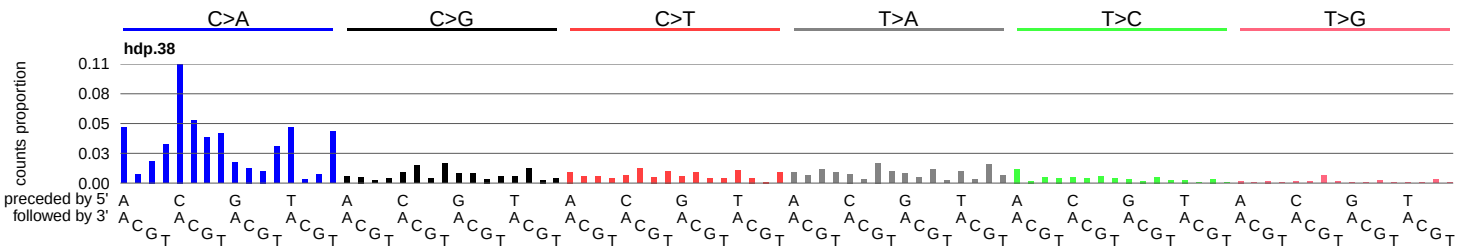

C>A
C>G
C>T
T>A
T>C
T>G
hdp.33
counts proportion
0.46
0.35
0.23
0.12
0.00
preceded by 5'
followed by 3'

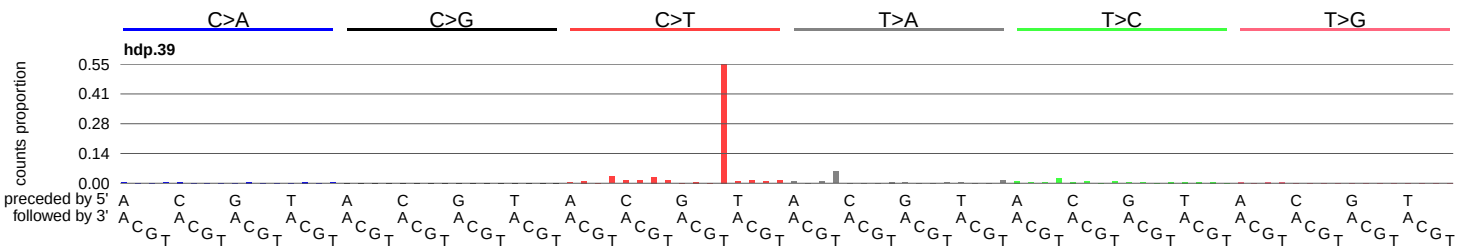

C>A
C>G
C>T
T>A
T>C
T>G
hdp.34
counts proportion
0.31
0.23
0.16
0.08
0.00
preceded by 5'
followed by 3'

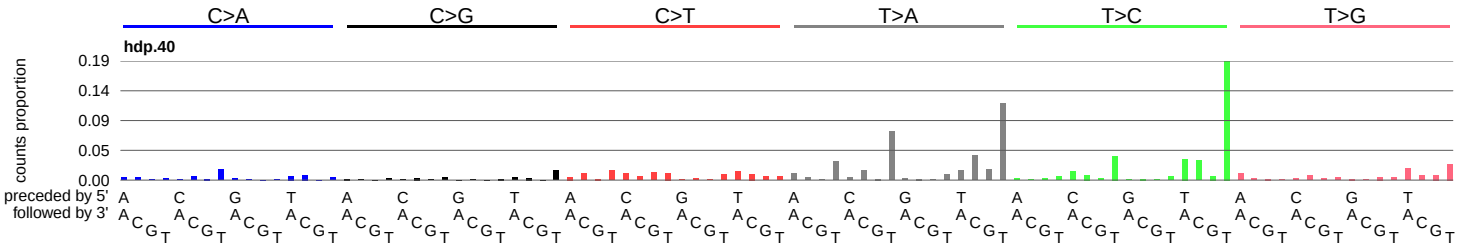

C>A
C>G
C>T
T>A
T>C
T>G
hdp.35
counts proportion
0.33
0.24
0.16
0.08
0.00
preceded by 5'
followed by 3'

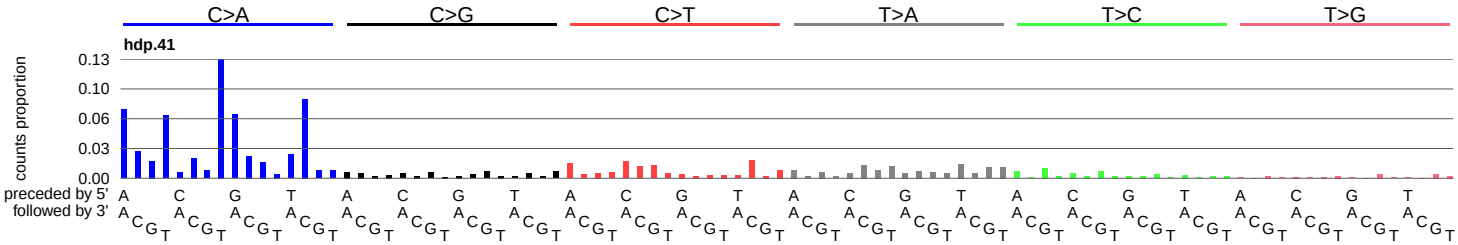

C>A
C>G
C>T
T>A
T>C
T>G
hdp.36
counts proportion
0.08
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

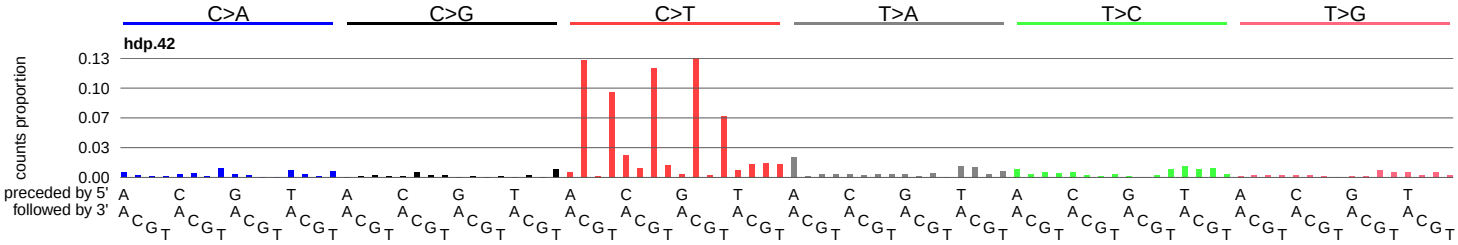

C>A
C>G
C>T
T>A
T>C
T>G
hdp.37
counts proportion
0.11
0.08
0.05
0.03
0.00
preceded by 5'
followed by 3'

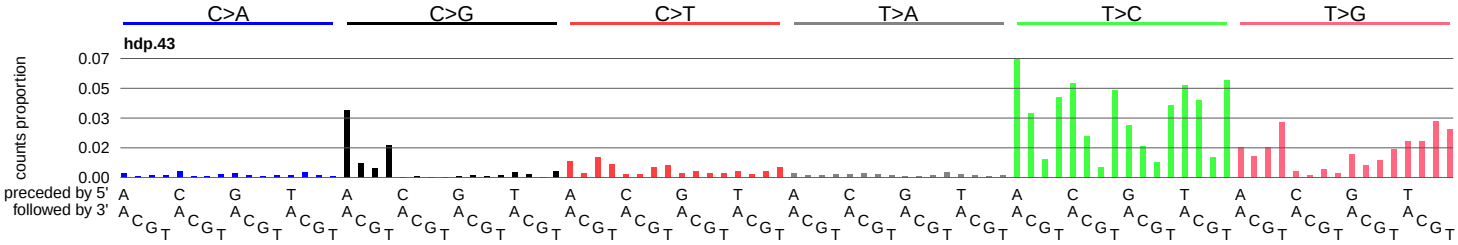

C>A
C>G
C>T
T>A
T>C
T>G
hdp.38
counts proportion
0.11
0.08
0.05
0.03
0.00
preceded by 5'
followed by 3'

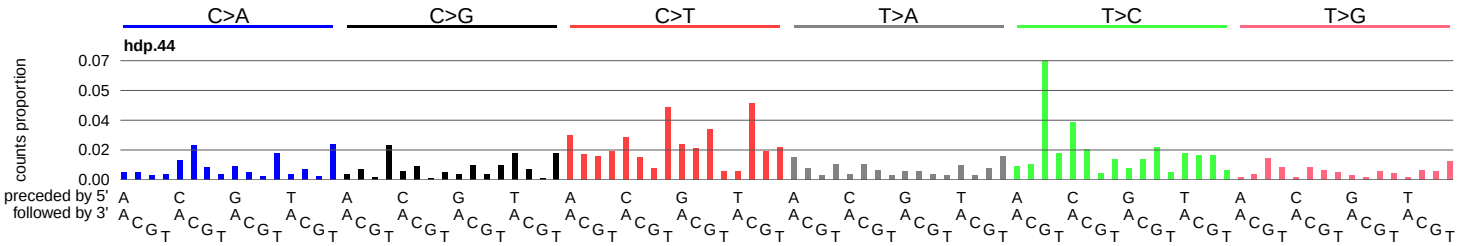

C>A
C>G
C>T
T>A
T>C
T>G
hdp.39
counts proportion
0.55
0.41
0.28
0.14
0.00
preceded by 5'
followed by 3'

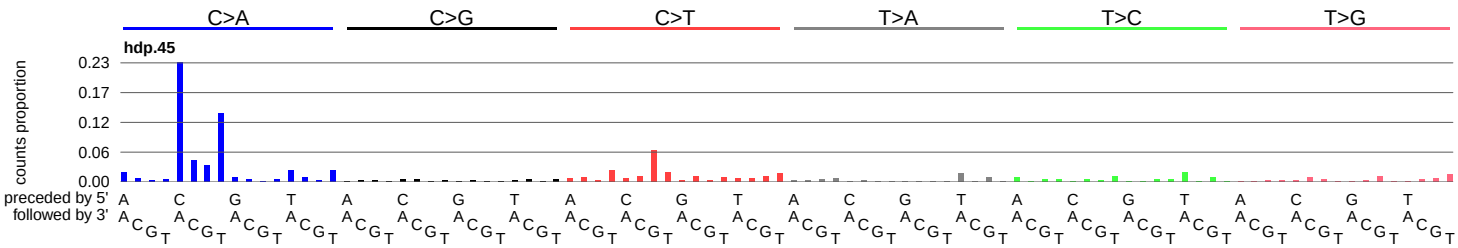

C>A
C>G
C>T
T>A
T>C
T>G
hdp.40
counts proportion
0.19
0.14
0.09
0.05
0.00
preceded by 5'
followed by 3'

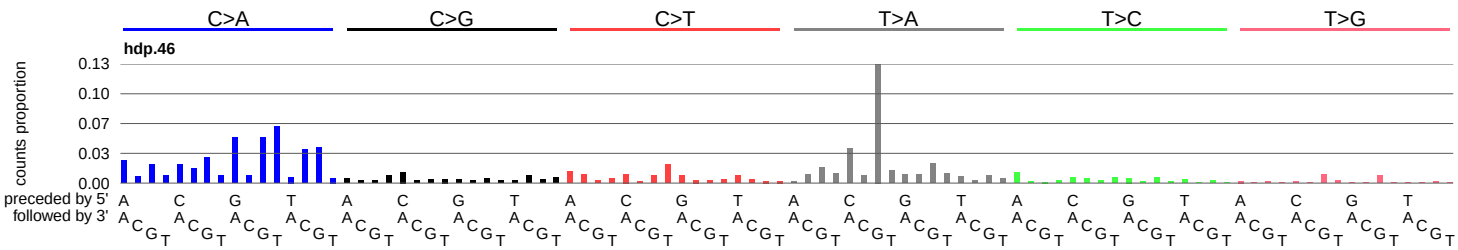

C>A
C>G
C>T
T>A
T>C
T>G
hdp.41
counts proportion
0.13
0.10
0.06
0.03
0.00
preceded by 5'
followed by 3'

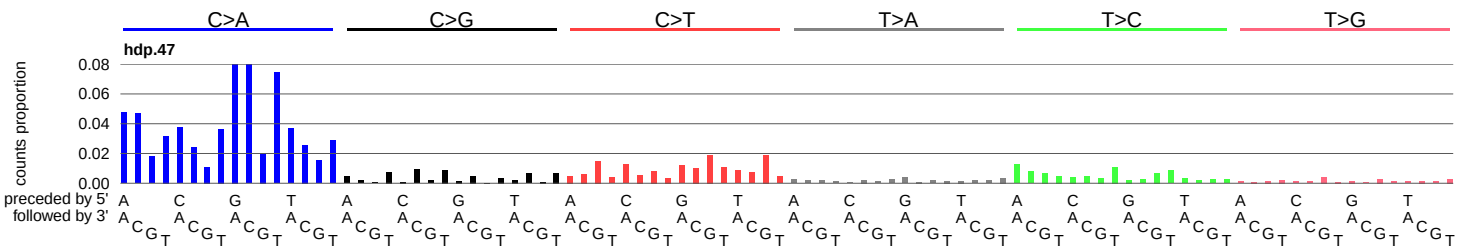

C>A
C>G
C>T
T>A
T>C
T>G
hdp.42
counts proportion
0.13
0.10
0.07
0.03
0.00
preceded by 5'
followed by 3'

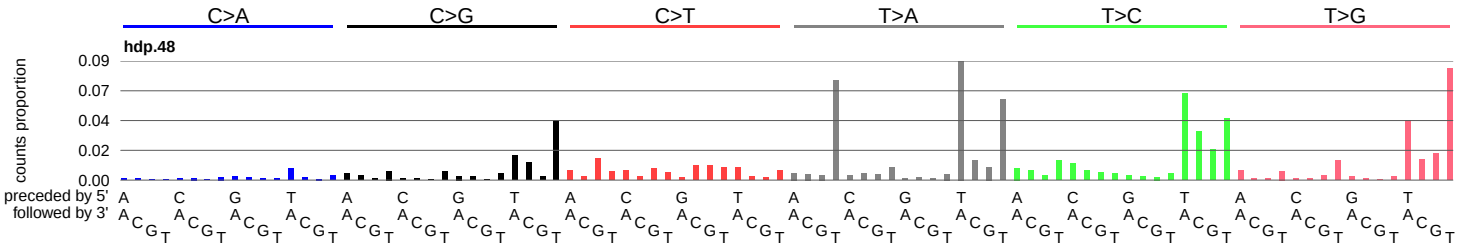

C>A
C>G
C>T
T>A
T>C
T>G
hdp.43
counts proportion
0.07
0.05
0.03
0.02
0.00
preceded by 5'
followed by 3'

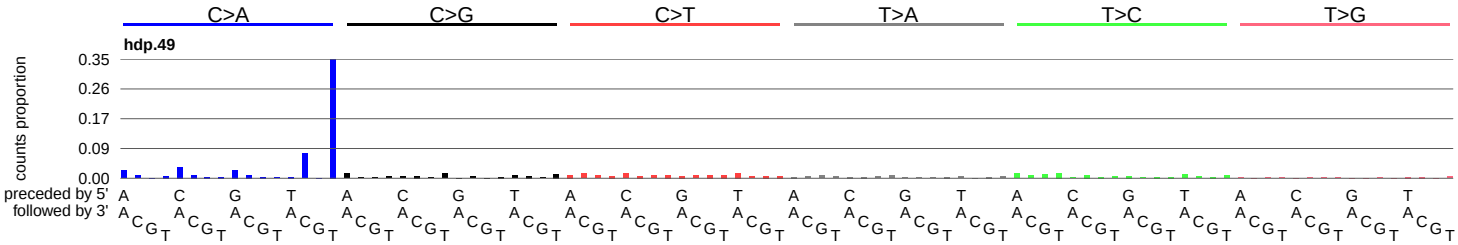

C>A
C>G
C>T
T>A
T>C
T>G
hdp.44
counts proportion
0.07
0.05
0.04
0.02
0.00
preceded by 5'
followed by 3'

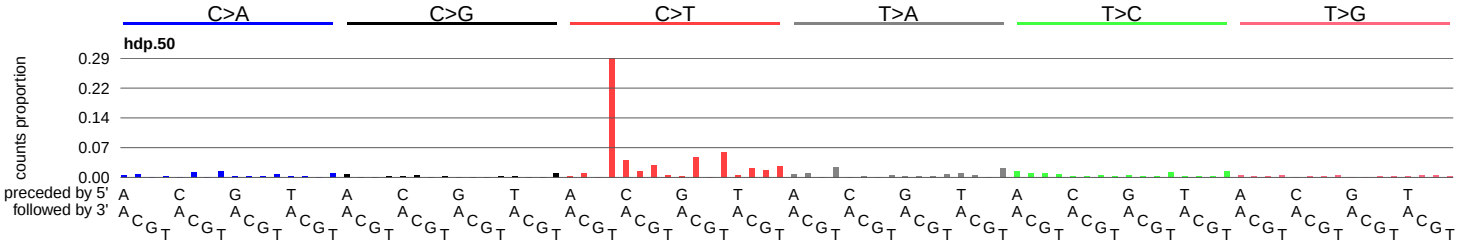

C>A
C>G
C>T
T>A
T>C
T>G
hdp.45
counts proportion
0.23
0.17
0.12
0.06
0.00
preceded by 5'
followed by 3'

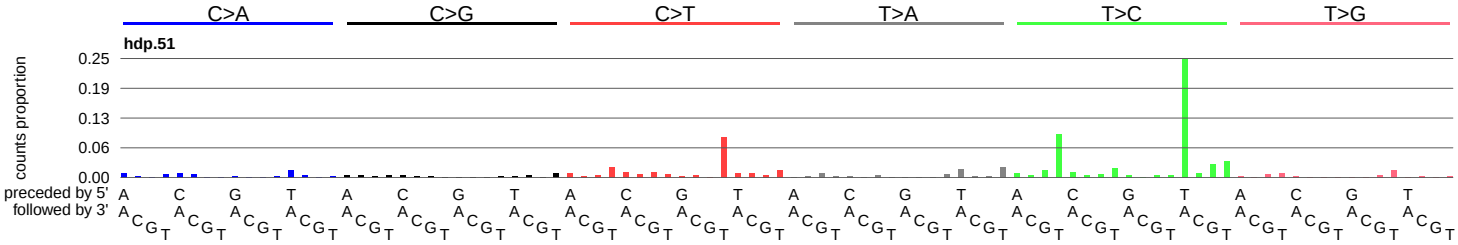

C>A
C>G
C>T
T>A
T>C
T>G
hdp.46
counts proportion
0.13
0.10
0.07
0.03
0.00
preceded by 5'
followed by 3'

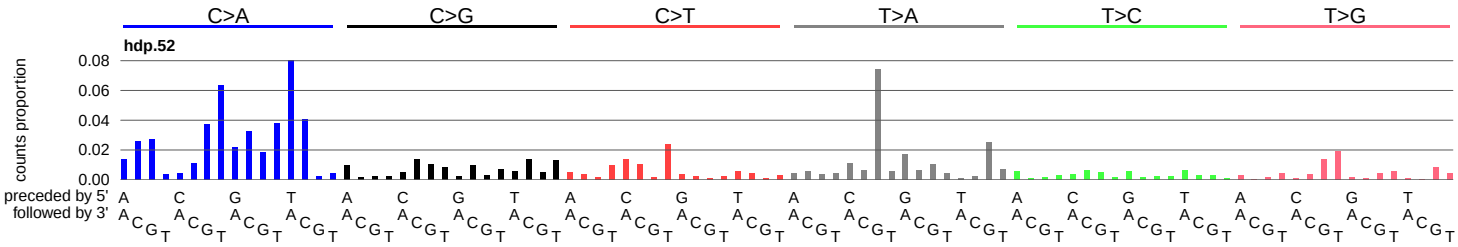

C>A
C>G
C>T
T>A
T>C
T>G
hdp.47
counts proportion
0.08
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

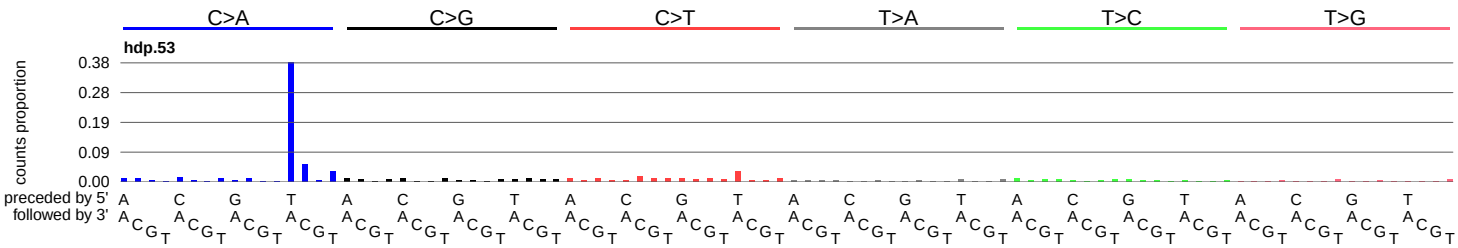

C>A
C>G
C>T
T>A
T>C
T>G
hdp.48
counts proportion
0.09
0.07
0.04
0.02
0.00
preceded by 5'
followed by 3'

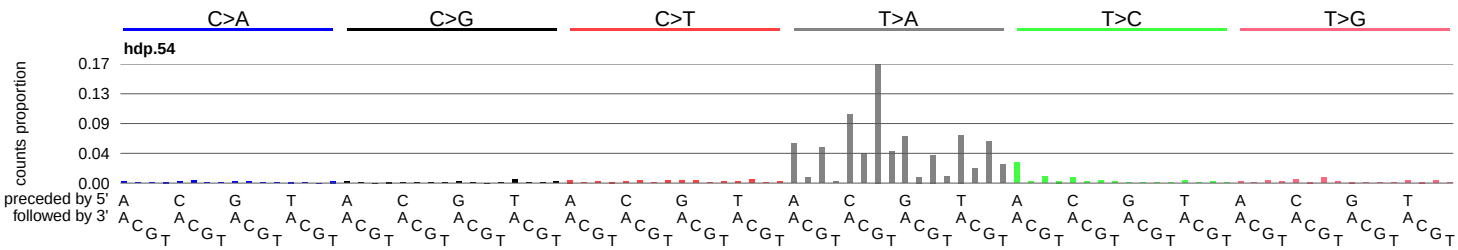

C>A
C>G
C>T
T>A
T>C
T>G
hdp.49
counts proportion
0.35
0.26
0.17
0.09
0.00
preceded by 5'
followed by 3'

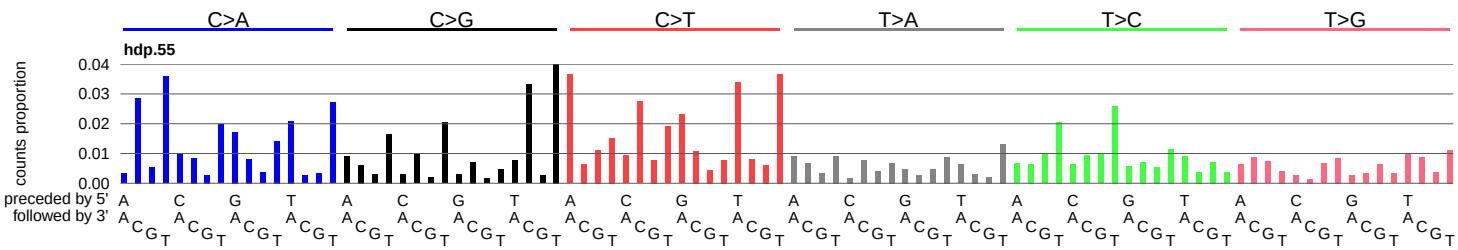

C>A
C>G
C>T
T>A
T>C
T>G
hdp.50
counts proportion
0.29
0.22
0.14
0.07
0.00
preceded by 5'
followed by 3'

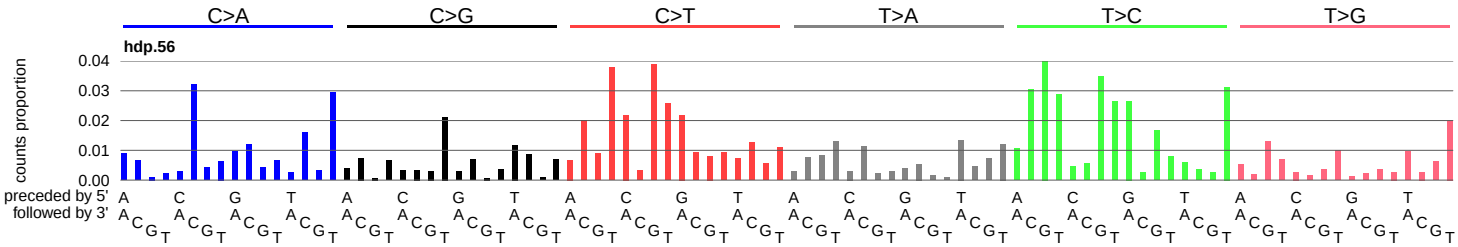

C>A
C>G
C>T
T>A
T>C
T>G
hdp.51
counts proportion
0.25
0.19
0.13
0.06
0.00
preceded by 5'
followed by 3'

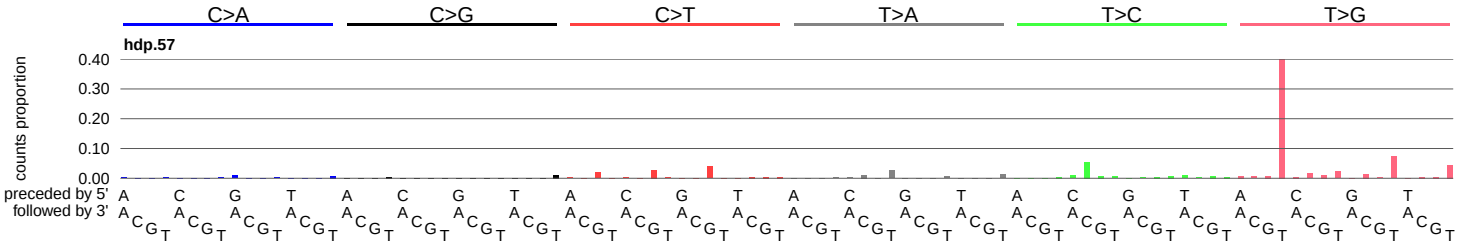

C>A
C>G
C>T
T>A
T>C
T>G
hdp.52
counts proportion
0.08
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

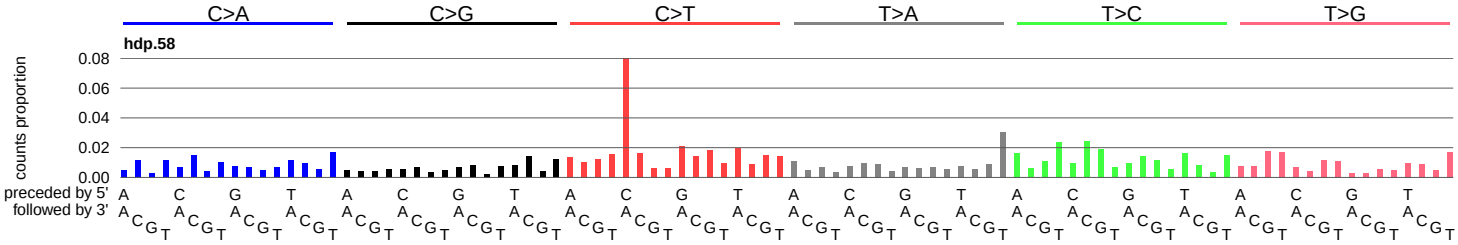

C>A
C>G
C>T
T>A
T>C
T>G
hdp.53
counts proportion
0.38
0.28
0.19
0.09
0.00
preceded by 5'
followed by 3'

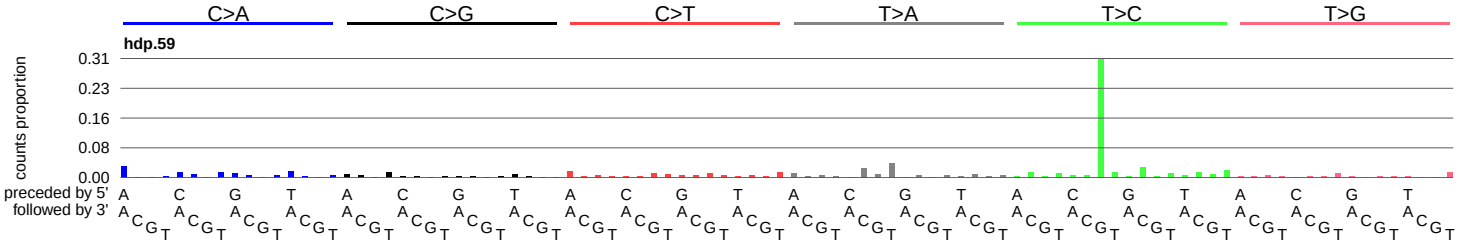

C>A
C>G
C>T
T>A
T>C
T>G
hdp.54
counts proportion
0.17
0.13
0.09
0.04
0.00
preceded by 5'
followed by 3'

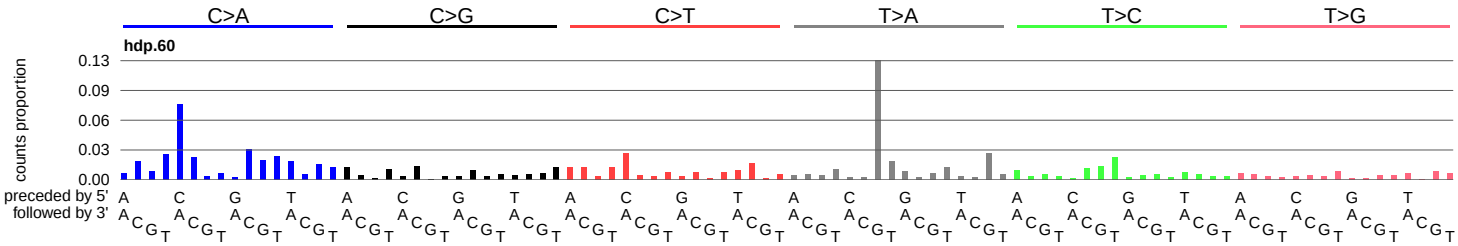

C>A
C>G
C>T
T>A
T>C
T>G
hdp.55
counts proportion
0.04
0.03
0.02
0.01
0.00
preceded by 5'
followed by 3'

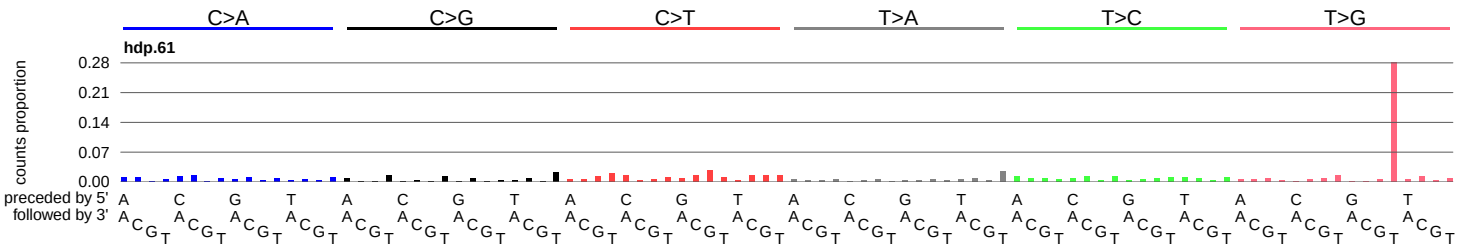

C>A
C>G
C>T
T>A
T>C
T>G
hdp.56
counts proportion
0.04
0.03
0.02
0.01
0.00
preceded by 5'
followed by 3'

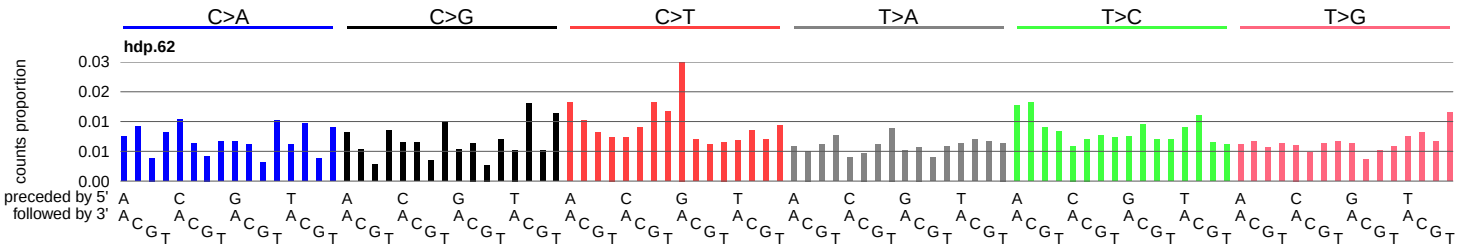

C>A
C>G
C>T
T>A
T>C
T>G
hdp.57
counts proportion
0.40
0.30
0.20
0.10
0.00
preceded by 5'
followed by 3'

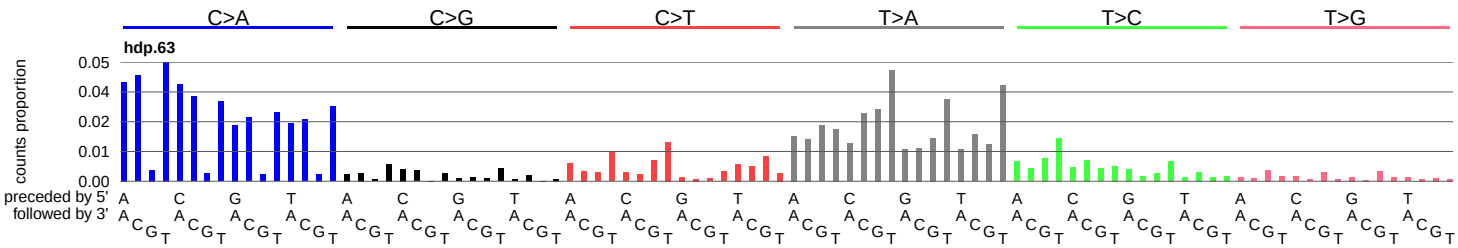

C>A
C>G
C>T
T>A
T>C
T>G
hdp.58
counts proportion
0.08
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

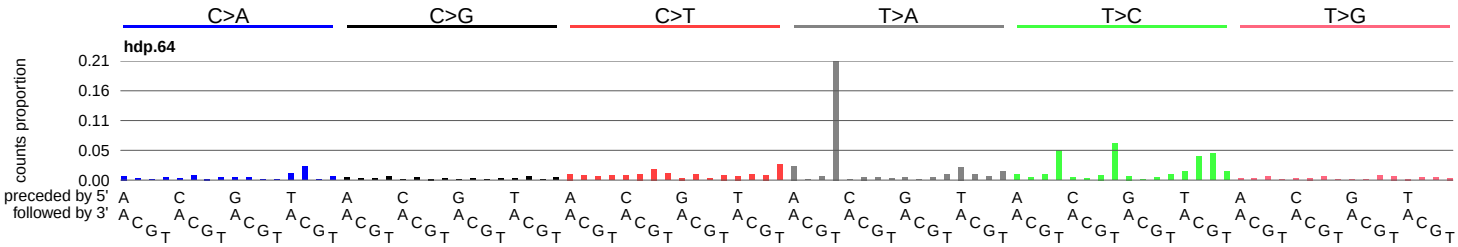

C>A
C>G
C>T
T>A
T>C
T>G
hdp.59
counts proportion
0.31
0.23
0.16
0.08
0.00
preceded by 5'
followed by 3'

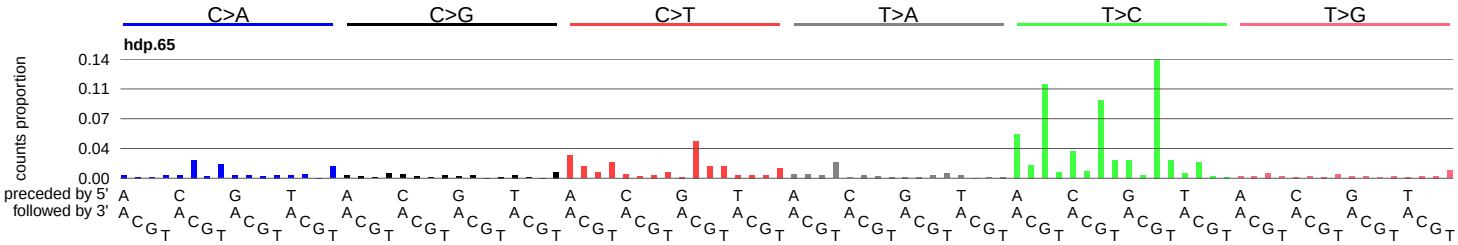

C>A
C>G
C>T
T>A
T>C
T>G
hdp.60
counts proportion
0.13
0.09
0.06
0.03
0.00
preceded by 5'
followed by 3'

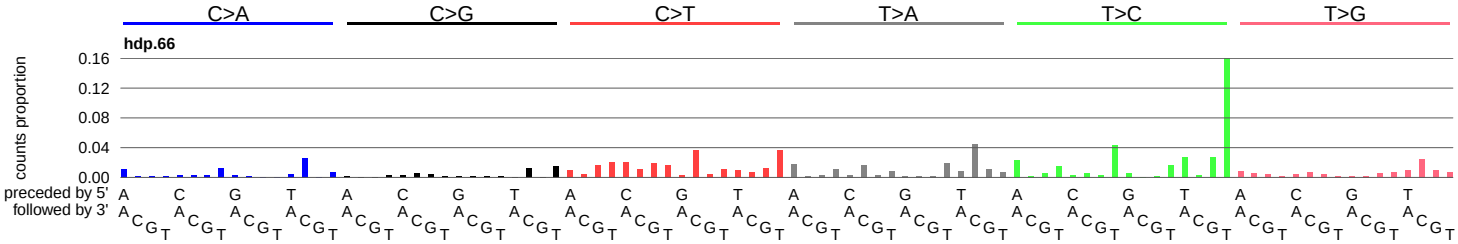

C>A
C>G
C>T
T>A
T>C
T>G
hdp.61
counts proportion
0.28
0.21
0.14
0.07
0.00
preceded by 5'
followed by 3'

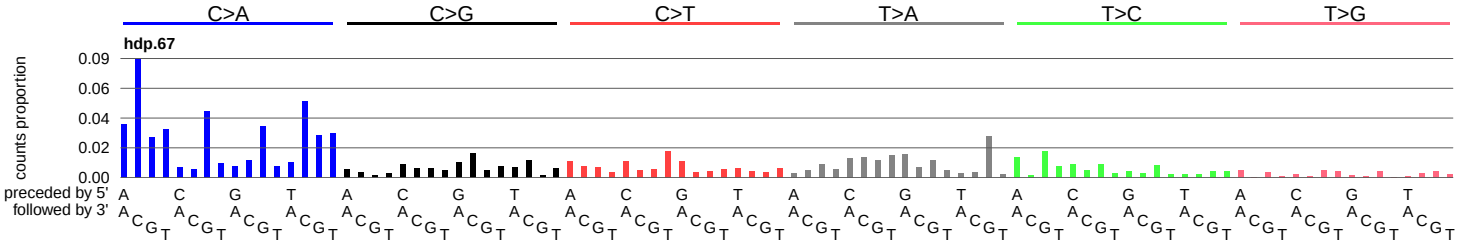

C>A
C>G
C>T
T>A
T>C
T>G
hdp.62
counts proportion
0.03
0.02
0.01
0.01
0.00
preceded by 5'
followed by 3'

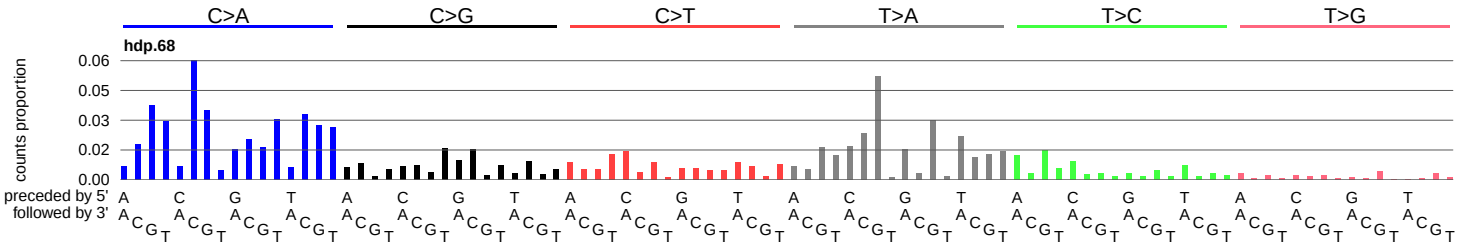

C>A
C>G
C>T
T>A
T>C
T>G
hdp.63
counts proportion
0.05
0.04
0.02
0.01
0.00
preceded by 5'
followed by 3'

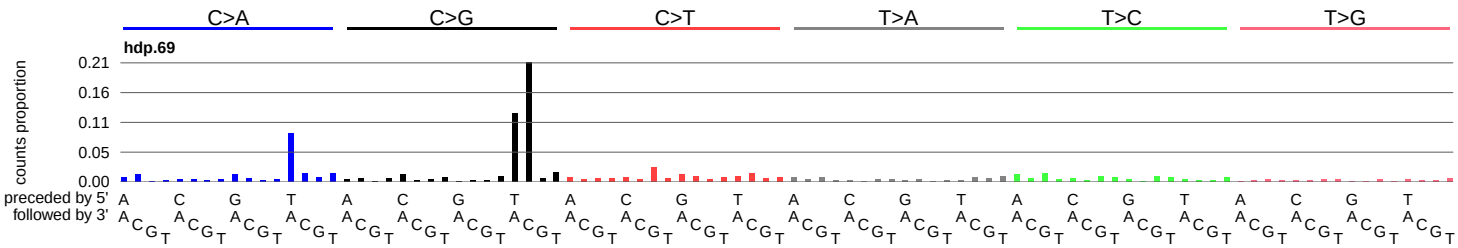

C>A
C>G
C>T
T>A
T>C
T>G
hdp.64
counts proportion
0.21
0.16
0.11
0.05
0.00
preceded by 5'
followed by 3'

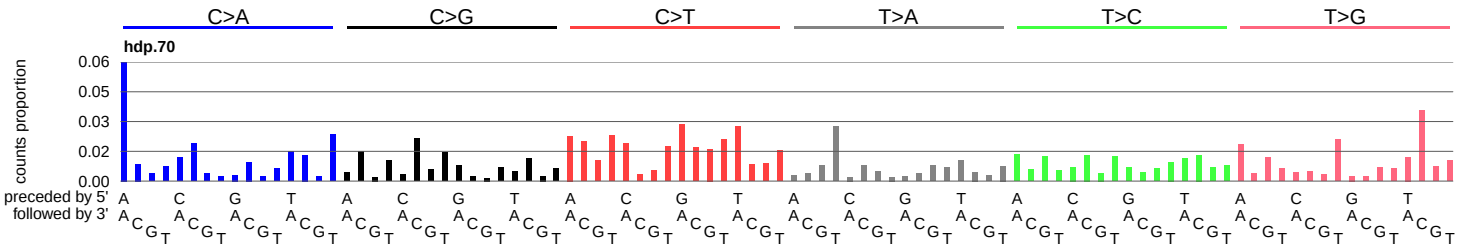

C>A
C>G
C>T
T>A
T>C
T>G
hdp.65
counts proportion
0.14
0.11
0.07
0.04
0.00
preceded by 5'
followed by 3'

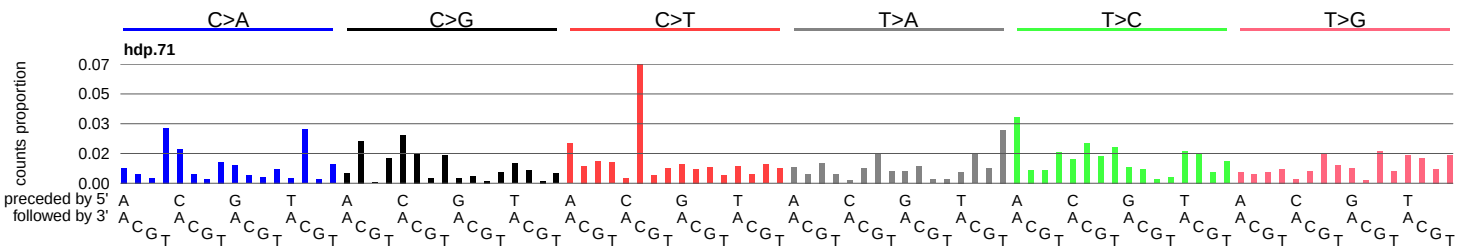

C>A
C>G
C>T
T>A
T>C
T>G
hdp.66
counts proportion
0.16
0.12
0.08
0.04
0.00
preceded by 5'
followed by 3'

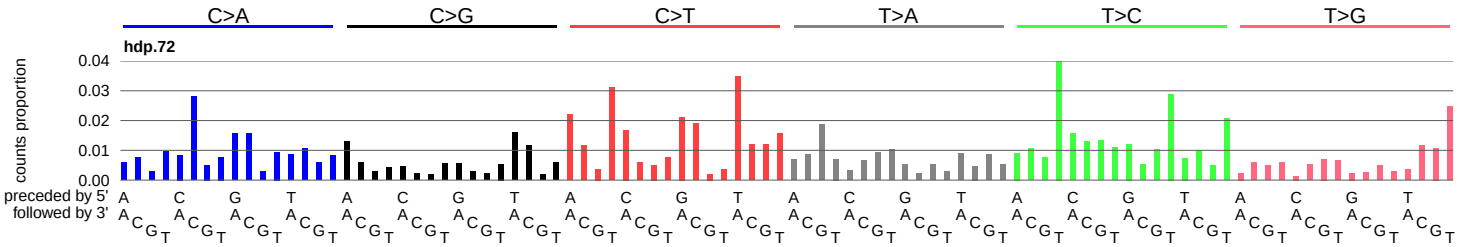

C>A
C>G
C>T
T>A
T>C
T>G
hdp.67
counts proportion
0.09
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

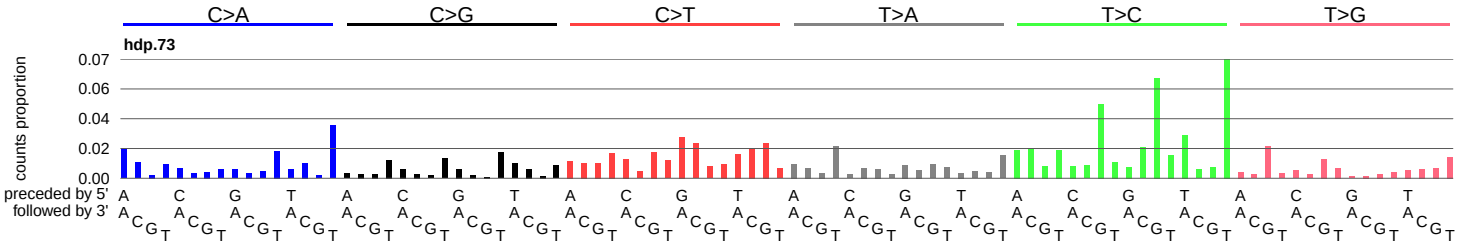

C>A
C>G
C>T
T>A
T>C
T>G
hdp.68
counts proportion
0.06
0.05
0.03
0.02
0.00
preceded by 5'
followed by 3'

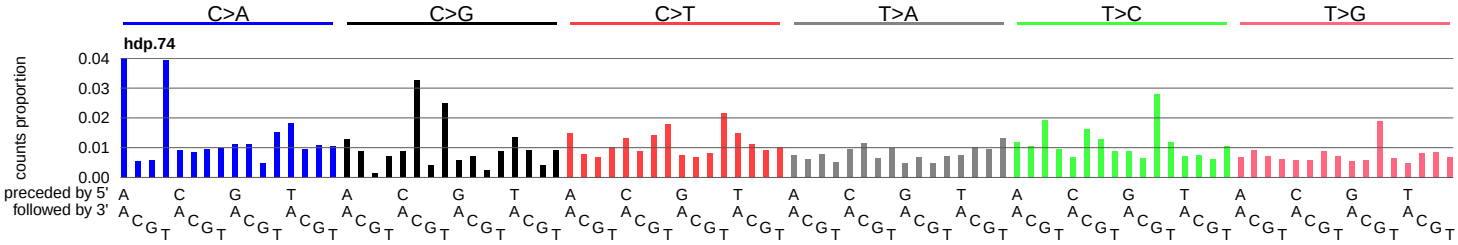

C>A
C>G
C>T
T>A
T>C
T>G
hdp.69
counts proportion
0.21
0.16
0.11
0.05
0.00
preceded by 5'
followed by 3'

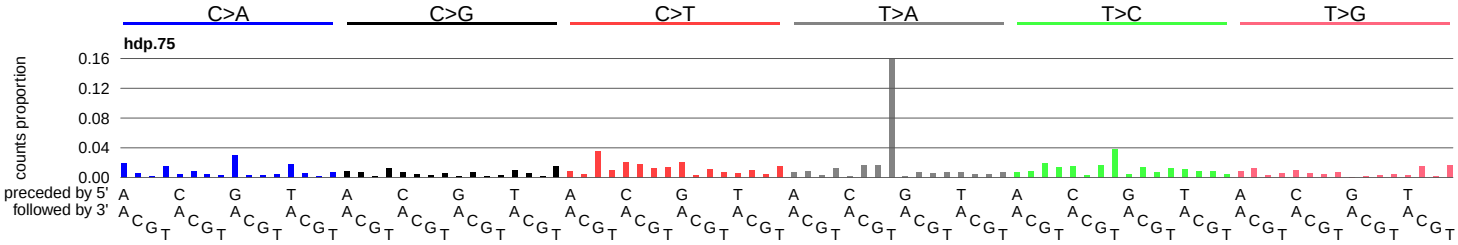

C>A
C>G
C>T
T>A
T>C
T>G
hdp.70
counts proportion
0.06
0.05
0.03
0.02
0.00
preceded by 5'
followed by 3'

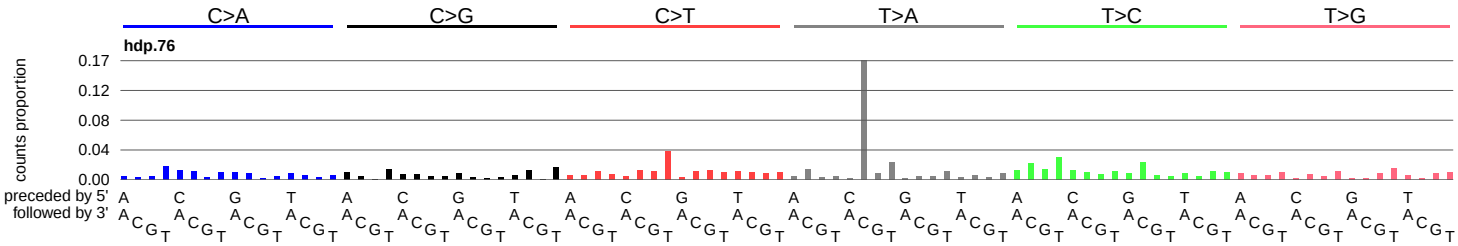

C>A
C>G
C>T
T>A
T>C
T>G
hdp.71
counts proportion
0.07
0.05
0.03
0.02
0.00
preceded by 5'
followed by 3'

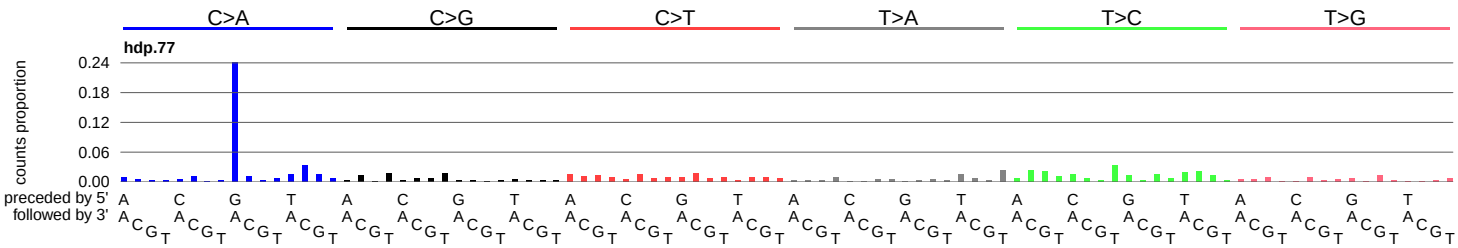

C>A
C>G
C>T
T>A
T>C
T>G
hdp.72
counts proportion
0.04
0.03
0.02
0.01
0.00
preceded by 5'
followed by 3'

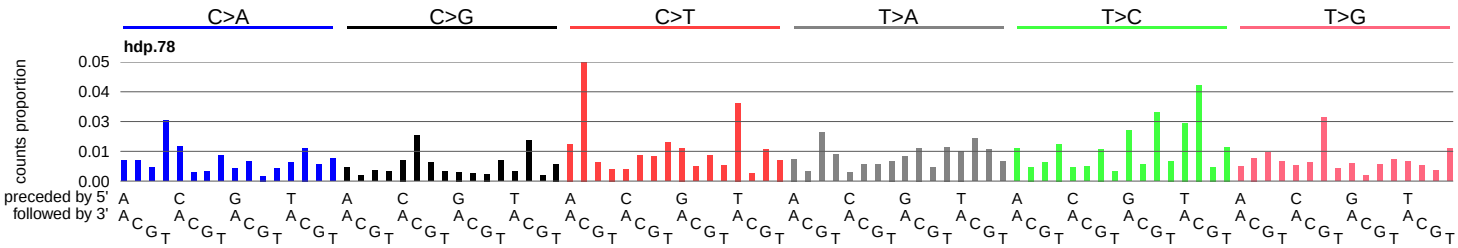

C>A
C>G
C>T
T>A
T>C
T>G
hdp.73
counts proportion
0.07
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

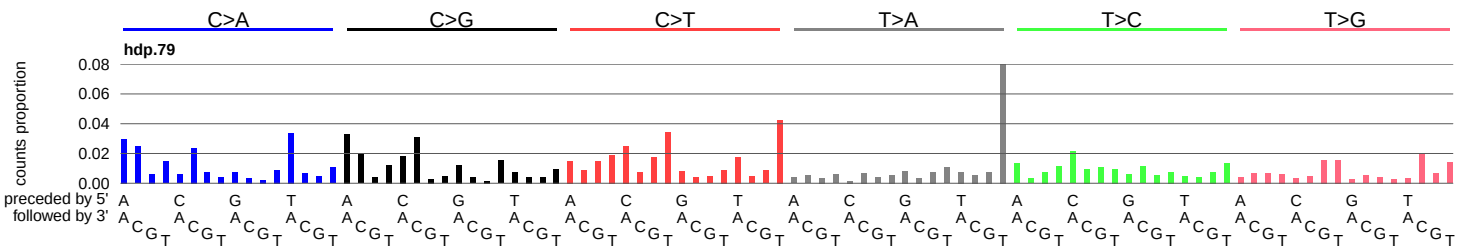

C>A
C>G
C>T
T>A
T>C
T>G
hdp.74
counts proportion
0.04
0.03
0.02
0.01
0.00
preceded by 5'
followed by 3'

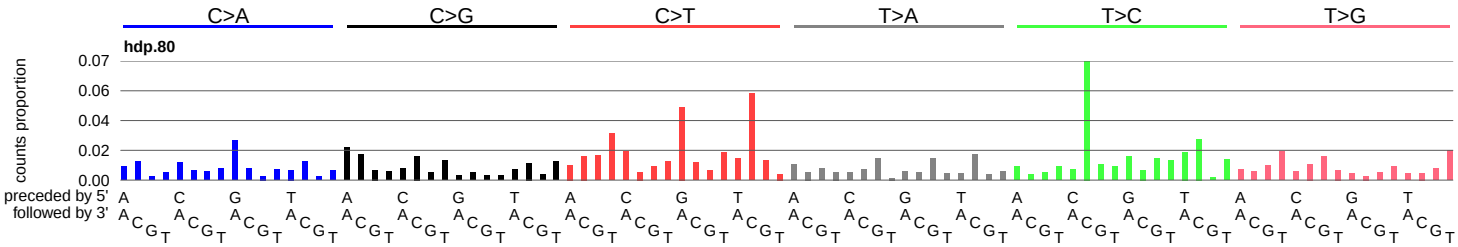

C>A
C>G
C>T
T>A
T>C
T>G
hdp.75
counts proportion
0.16
0.12
0.08
0.04
0.00
preceded by 5'
followed by 3'

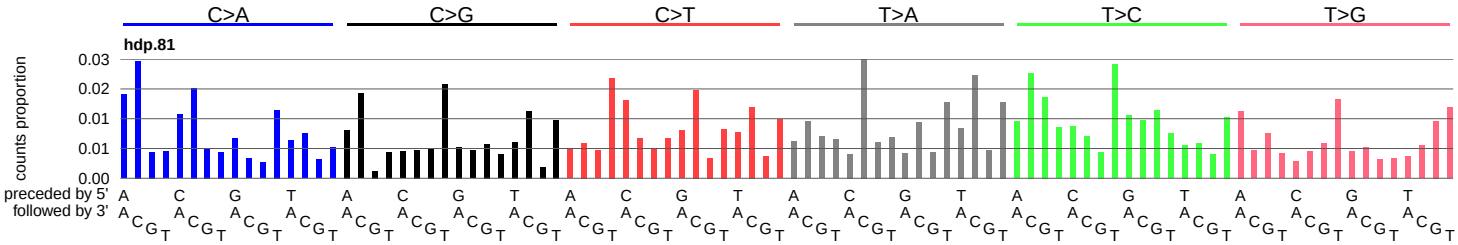

C>A
C>G
C>T
T>A
T>C
T>G
hdp.76
counts proportion
0.17
0.12
0.08
0.04
0.00
preceded by 5'
followed by 3'

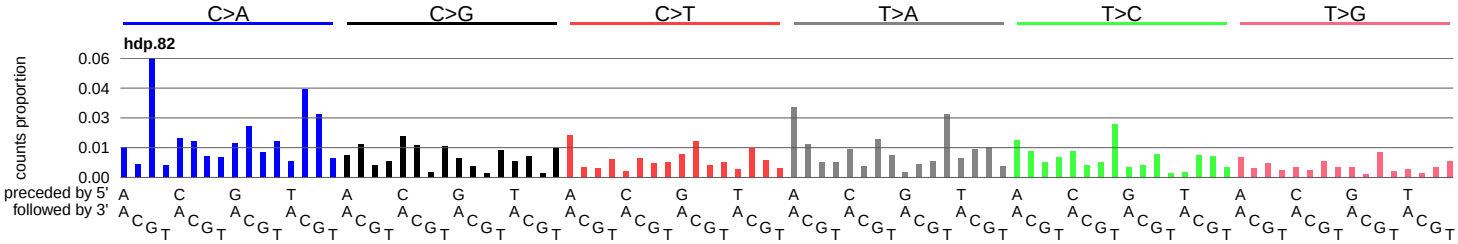

C>A
C>G
C>T
T>A
T>C
T>G
hdp.77
counts proportion
0.24
0.18
0.12
0.06
0.00
preceded by 5'
followed by 3'

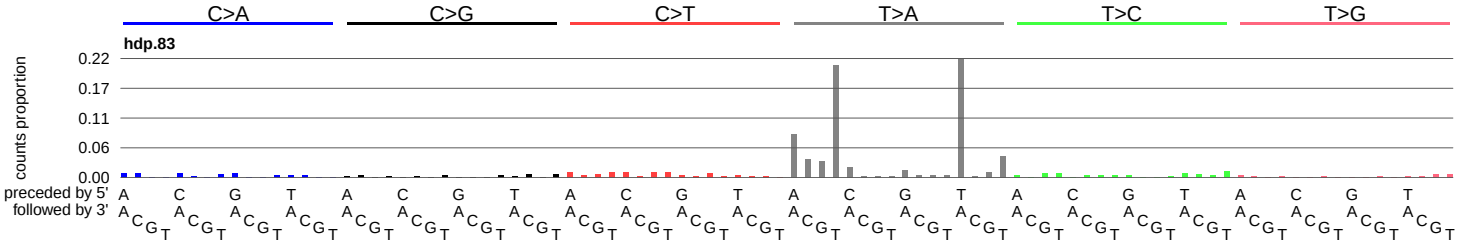

C>A
C>G
C>T
T>A
T>C
T>G
hdp.78
counts proportion
0.05
0.04
0.03
0.01
0.00
preceded by 5'
followed by 3'

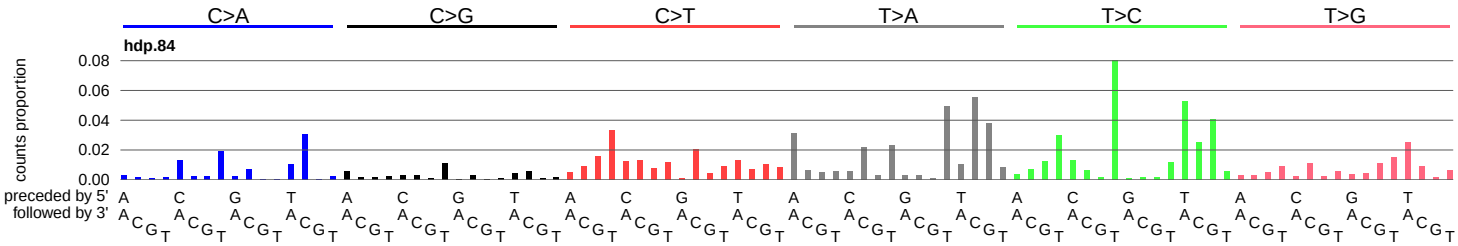

C>A
C>G
C>T
T>A
T>C
T>G
hdp.79
counts proportion
0.08
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

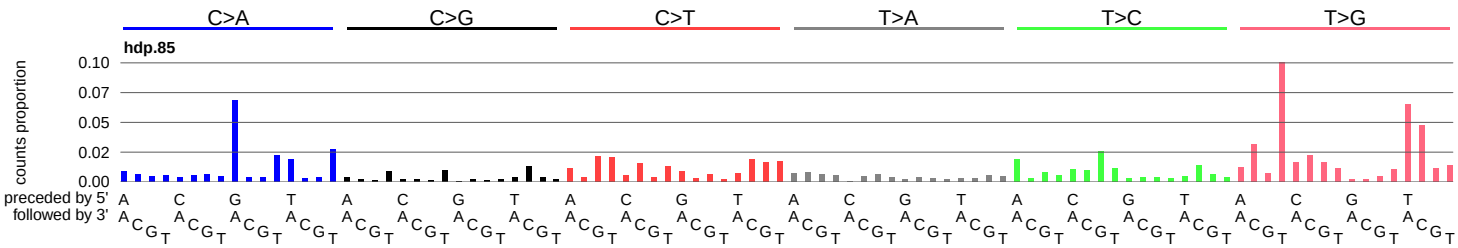

C>A
C>G
C>T
T>A
T>C
T>G
hdp.80
counts proportion
0.07
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

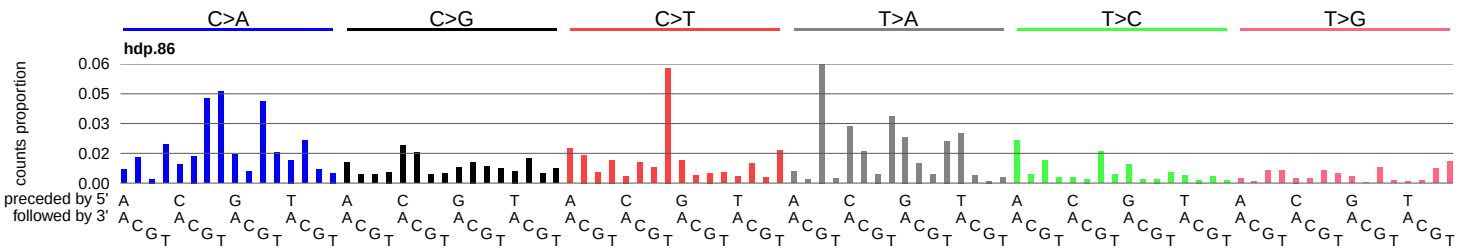

C>A
C>G
C>T
T>A
T>C
T>G
hdp.81
counts proportion
0.03
0.02
0.01
0.01
0.00
preceded by 5'
followed by 3'

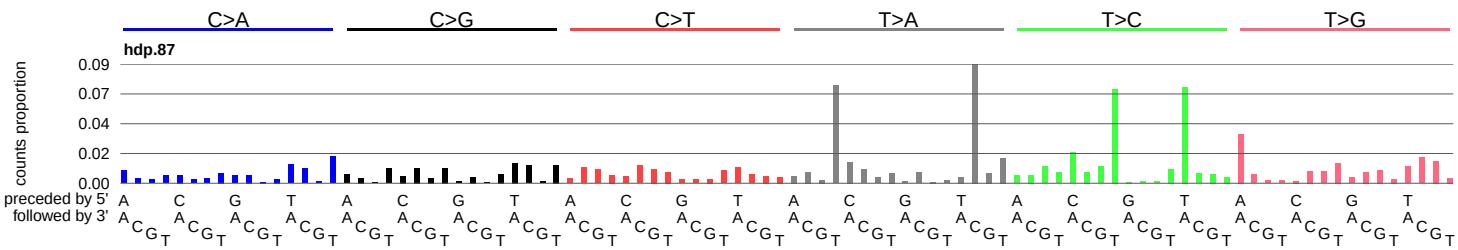

C>A
C>G
C>T
T>A
T>C
T>G
hdp.82
counts proportion
0.06
0.04
0.03
0.01
0.00
preceded by 5'
followed by 3'

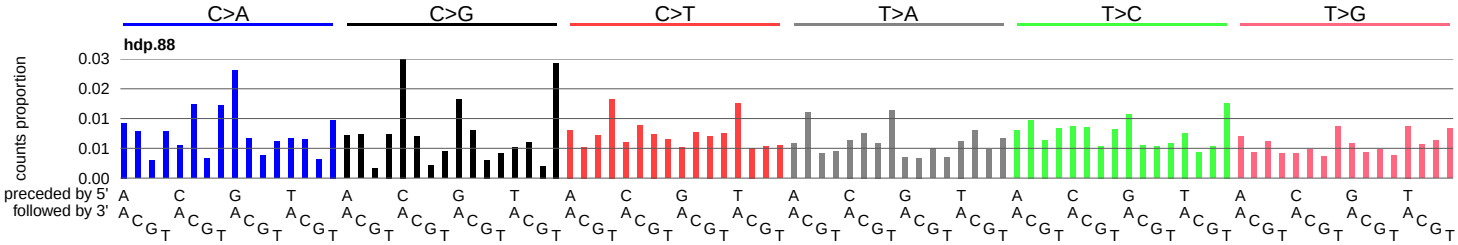

C>A
C>G
C>T
T>A
T>C
T>G
hdp.83
counts proportion
0.22
0.17
0.11
0.06
0.00
preceded by 5'
followed by 3'

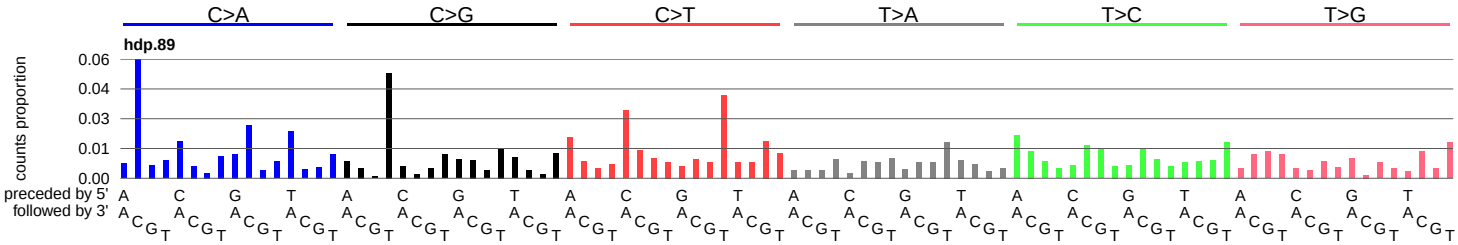

C>A
C>G
C>T
T>A
T>C
T>G
hdp.84
counts proportion
0.08
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'

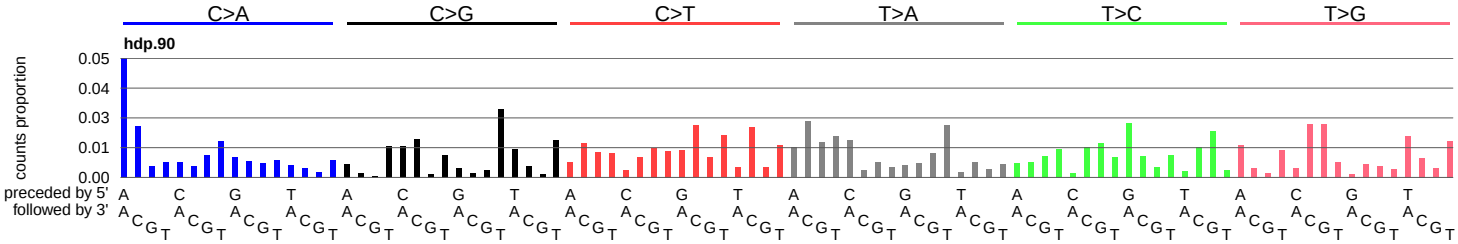

C>A
C>G
C>T
T>A
T>C
T>G
hdp.85
counts proportion
0.10
0.07
0.05
0.02
0.00
preceded by 5'
followed by 3'

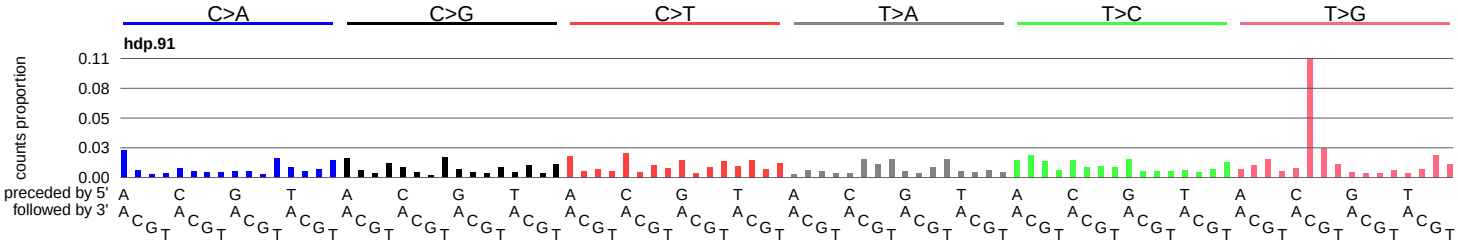

C>A
C>G
C>T
T>A
T>C
T>G
hdp.86
counts proportion
0.06
0.05
0.03
0.02
0.00
preceded by 5'
followed by 3'

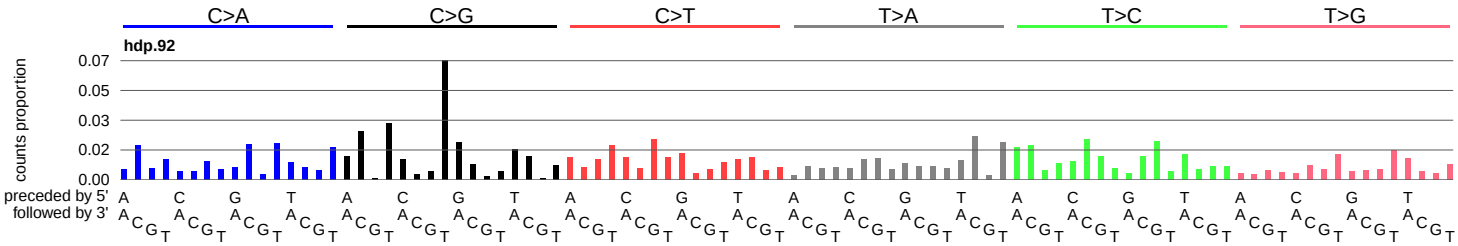

C>A
C>G
C>T
T>A
T>C
T>G
hdp.87
counts proportion
0.09
0.07
0.04
0.02
0.00
preceded by 5'
followed by 3'

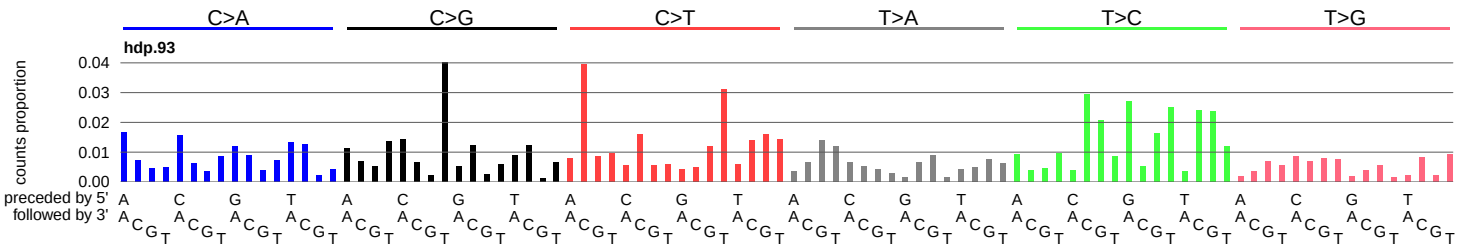

C>A
C>G
C>T
T>A
T>C
T>G
hdp.88
counts proportion
0.03
0.02
0.01
0.01
0.00
preceded by 5'
followed by 3'

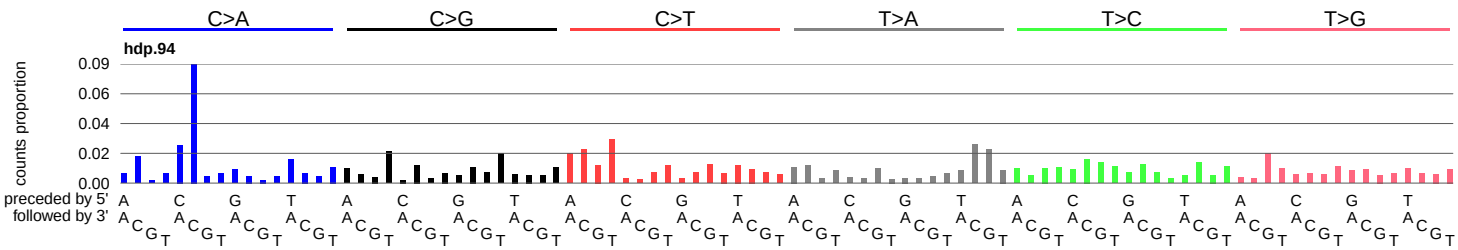

C>A
C>G
C>T
T>A
T>C
T>G
hdp.89
counts proportion
0.06
0.04
0.03
0.01
0.00
preceded by 5'
followed by 3'

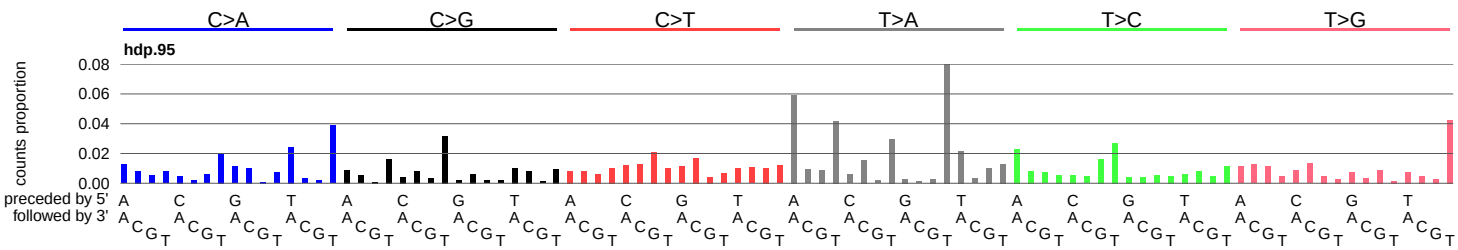

C>A
C>G
C>T
T>A
T>C
T>G
hdp.90
counts proportion
0.05
0.04
0.03
0.01
0.00
preceded by 5'
followed by 3'

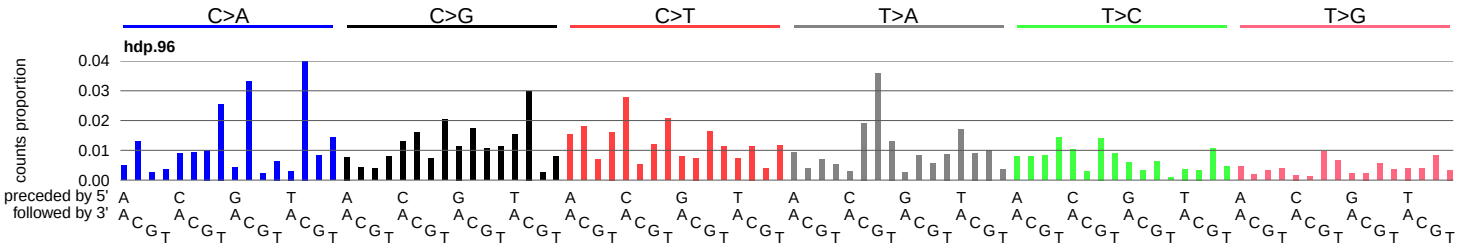

C>A
C>G
C>T
T>A
T>C
T>G
hdp.91
counts proportion
0.11
0.08
0.05
0.03
0.00
preceded by 5'
followed by 3'

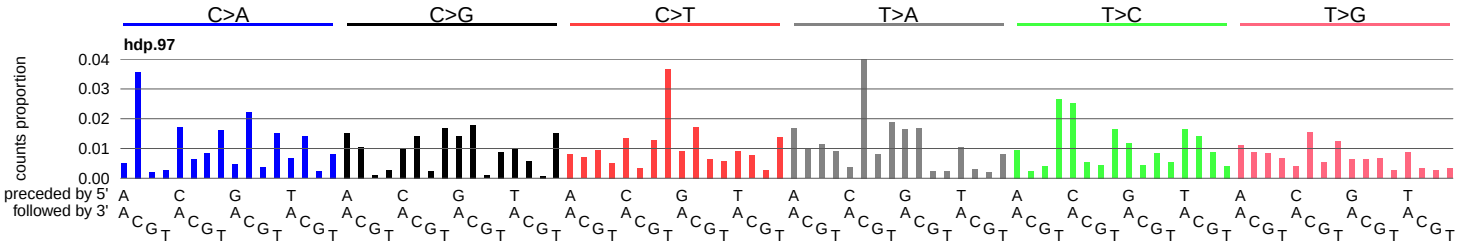

C>A
C>G
C>T
T>A
T>C
T>G
hdp.92
counts proportion
0.07
0.05
0.03
0.02
0.00
preceded by 5'
followed by 3'

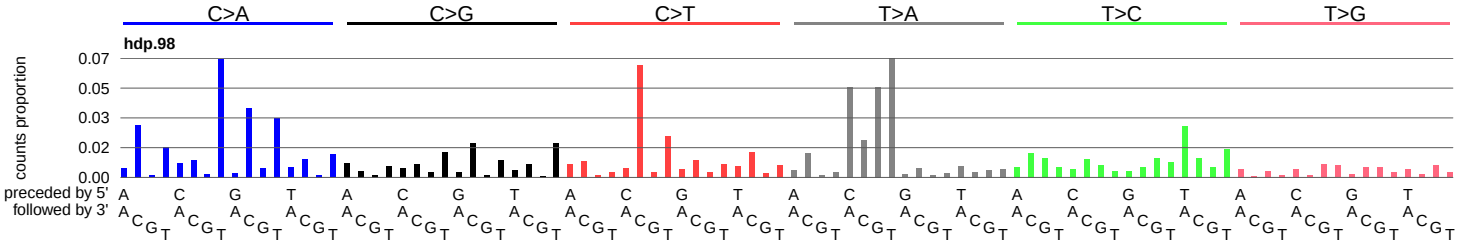

C>A
C>G
C>T
T>A
T>C
T>G
hdp.93
counts proportion
0.04
0.03
0.02
0.01
0.00
preceded by 5'
followed by 3'

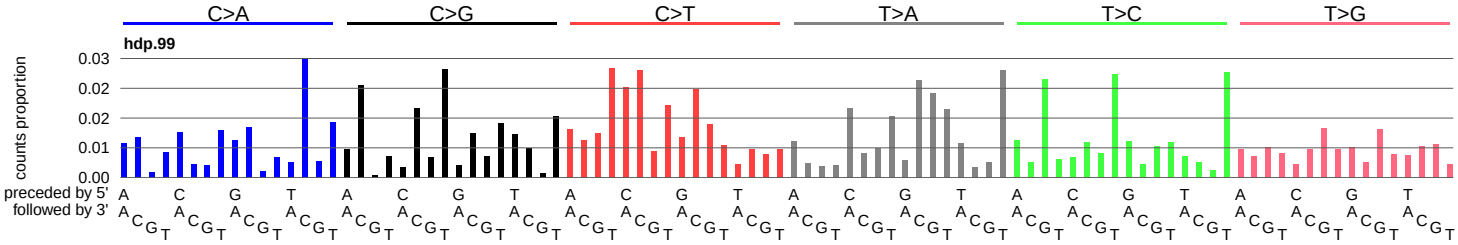

C>A
C>G
C>T
T>A
T>C
T>G
hdp.94
counts proportion
0.09
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'


C>A
C>G
C>T
T>A
T>C
T>G
hdp.95
counts proportion
0.08
0.06
0.04
0.02
0.00
preceded by 5'
followed by 3'


C>A
C>G
C>T
T>A
T>C
T>G
hdp.96
counts proportion
0.04
0.03
0.02
0.01
0.00
preceded by 5'
followed by 3'


C>A
C>G
C>T
T>A
T>C
T>G
hdp.97
counts proportion
0.04
0.03
0.02
0.01
0.00
preceded by 5'
followed by 3'


C>A
C>G
C>T
T>A
T>C
T>G
hdp.98
counts proportion
0.07
0.05
0.03
0.02
0.00
preceded by 5'
followed by 3'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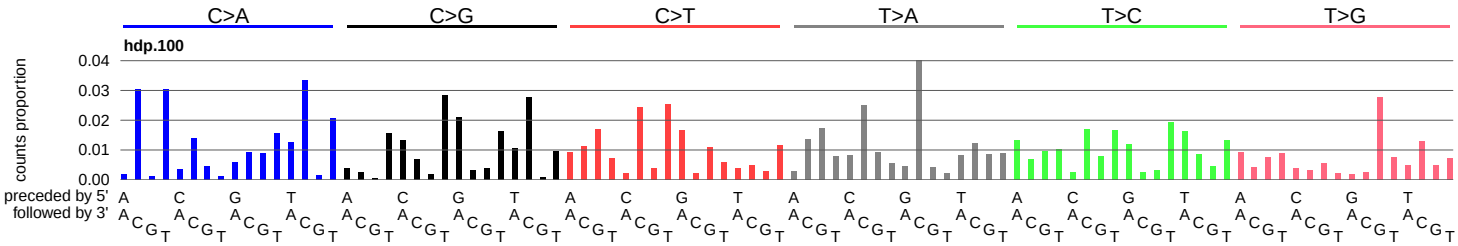
C>G
C>T
T>A
T>C
T>G
hdp.99
counts proportion
0.03
0.02
0.02
0.01
0.00
preceded by 5'
followed by 3'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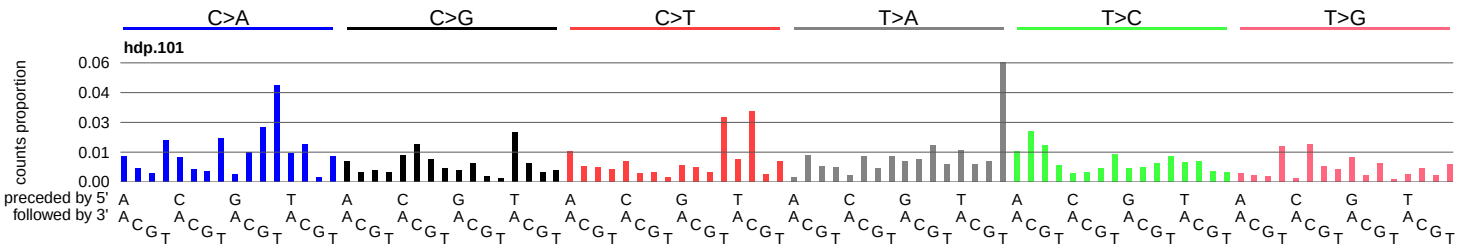
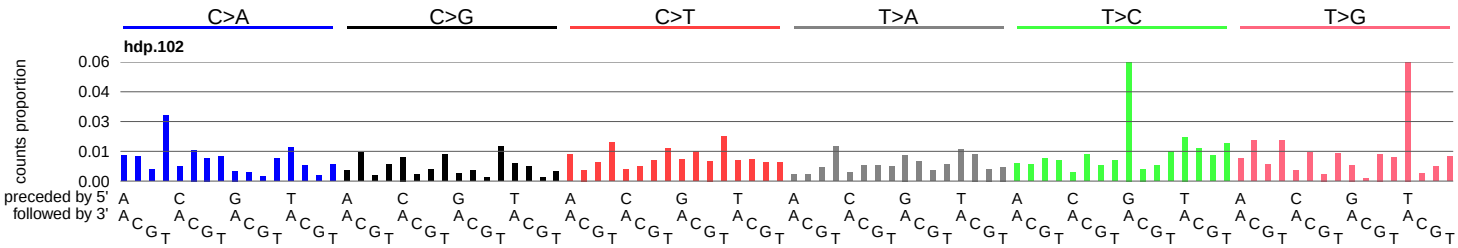
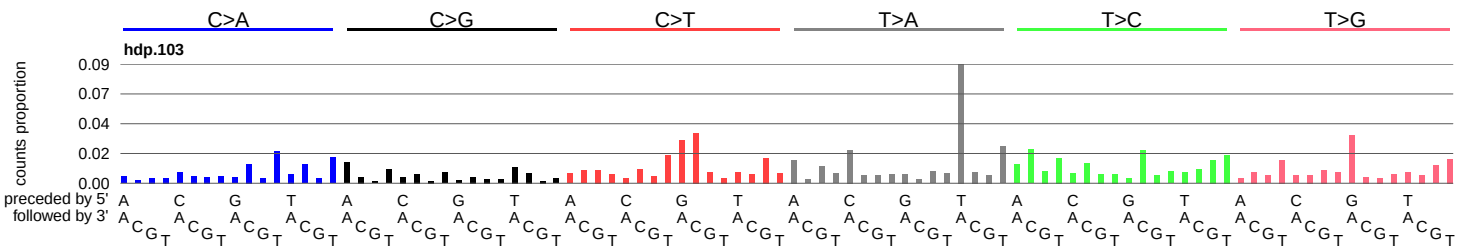
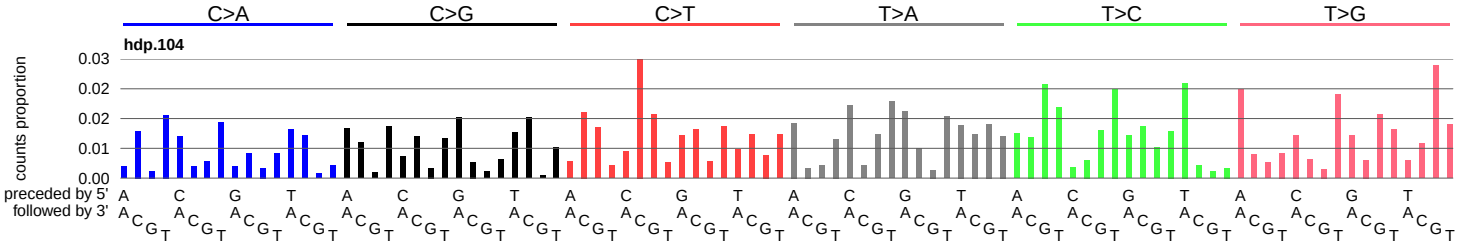
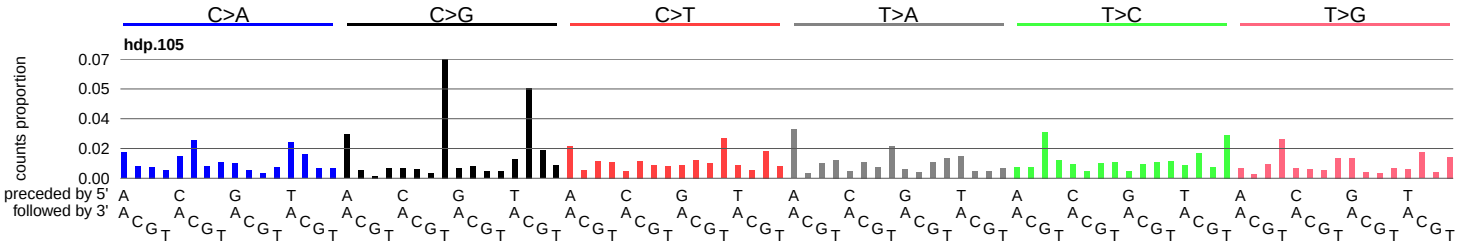
C>G
C>T
T>A
T>C
T>G
hdp.100
counts proportion
0.04
0.03
0.02
0.01
0.00
preceded by 5'
followed by 3'

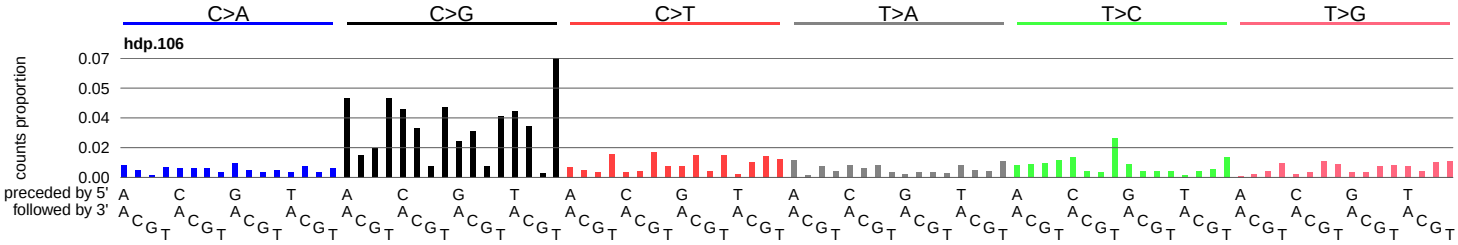

C>A
C>G
C>T
T>A
T>C
T>G
hdp.101
counts proportion
0.06
0.04
0.03
0.01
0.00
preceded by 5'
followed by 3'

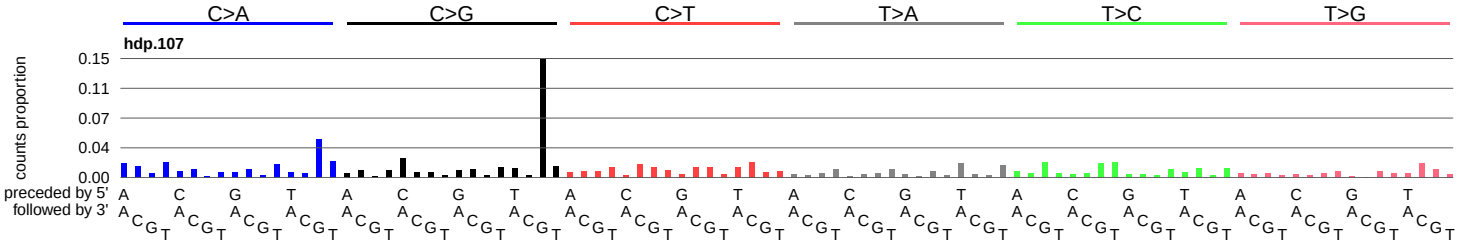

C>A
C>G
C>T
T>A
T>C
T>G
hdp.102
counts proportion
0.06
0.04
0.03
0.01
0.00
preceded by 5'
followed by 3'


C>A
C>G
C>T
T>A
T>C
T>G
hdp.103
counts proportion
0.09
0.07
0.04
0.02
0.00
preceded by 5'
followed by 3'


C>A
C>G
C>T
T>A
T>C
T>G
hdp.104
counts proportion
0.03
0.02
0.02
0.01
0.00
preceded by 5'
followed by 3'


C>A
C>G
C>T
T>A
T>C
T>G
hdp.105
counts proportion
0.07
0.05
0.04
0.02
0.00
preceded by 5'
followed by 3'


C>A
C>G
C>T
T>A
T>C
T>G
hdp.106
counts proportion
0.07
0.05
0.04
0.02
0.00
preceded by 5'
followed by 3'


C>A
C>G
C>T
T>A
T>C
T>G
hdp.107
counts proportion
0.15
0.11
0.07
0.04
0.00
preceded by 5'
followed by 3'