WGCNA – Summary

adjacency: Calculate network adjacency

Calculates (correlation or distance) network adjacency from given expression data or from a similarity.

TOMsimilarity: Topological overlap matrix similarity and dissimilarity

Calculation of the topological overlap matrix, and the corresponding dissimilarity, from a given adjacency matrix.

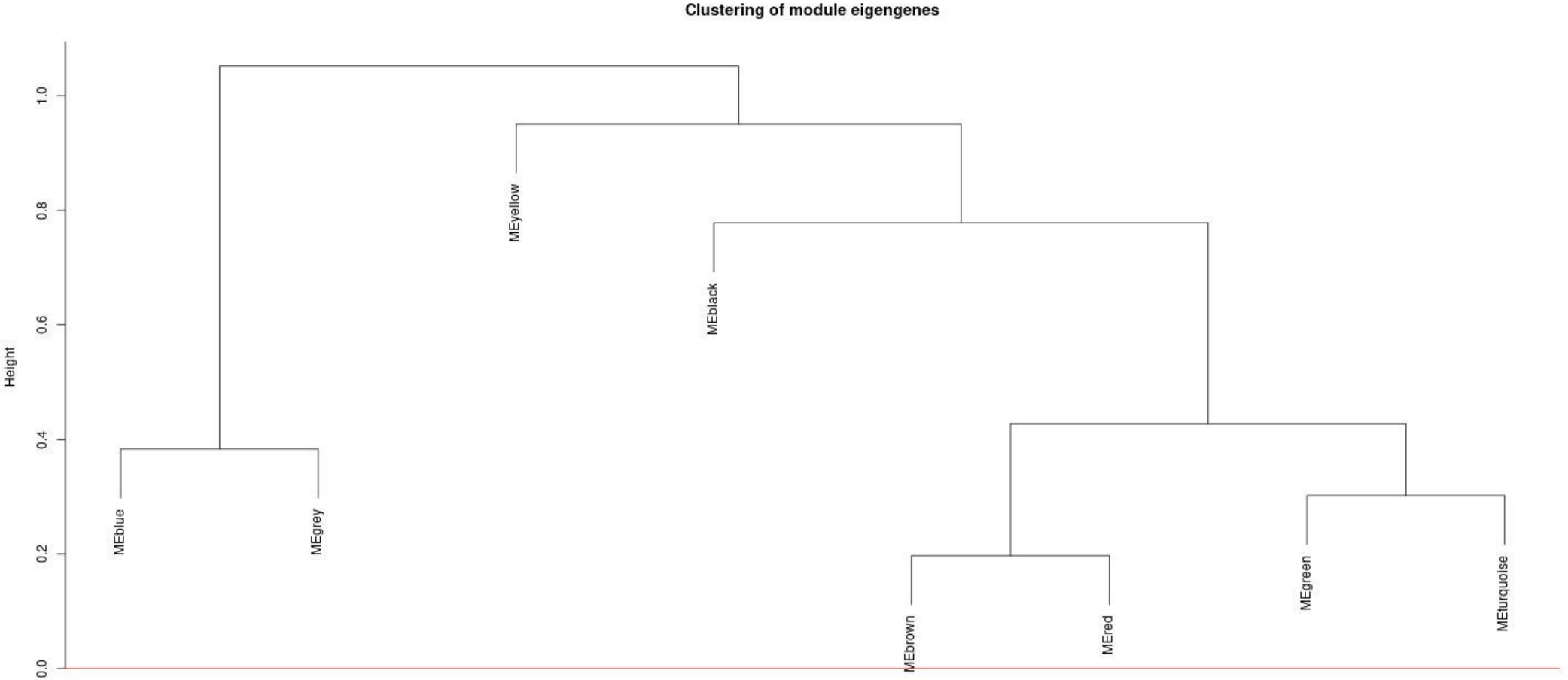
signedKME: Signed eigengene-based connectivity

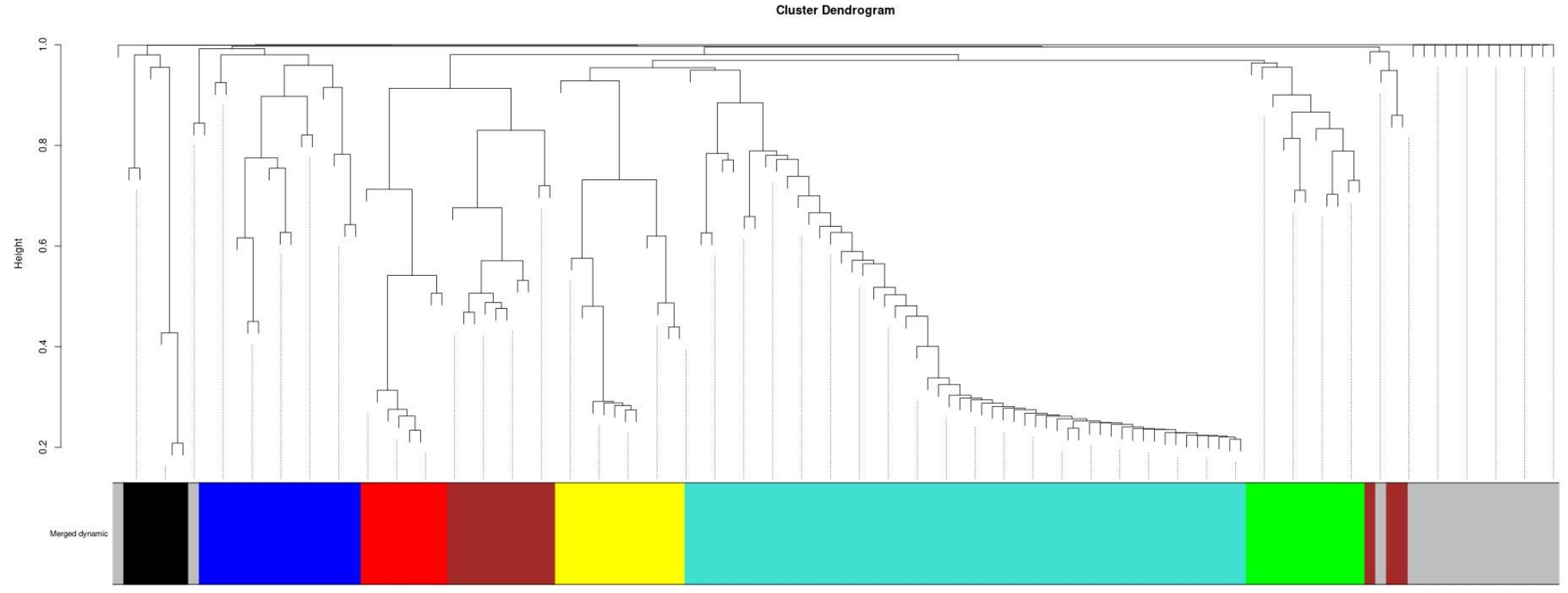
Calculation of (signed) eigengene-based connectivity, also known as module membership.

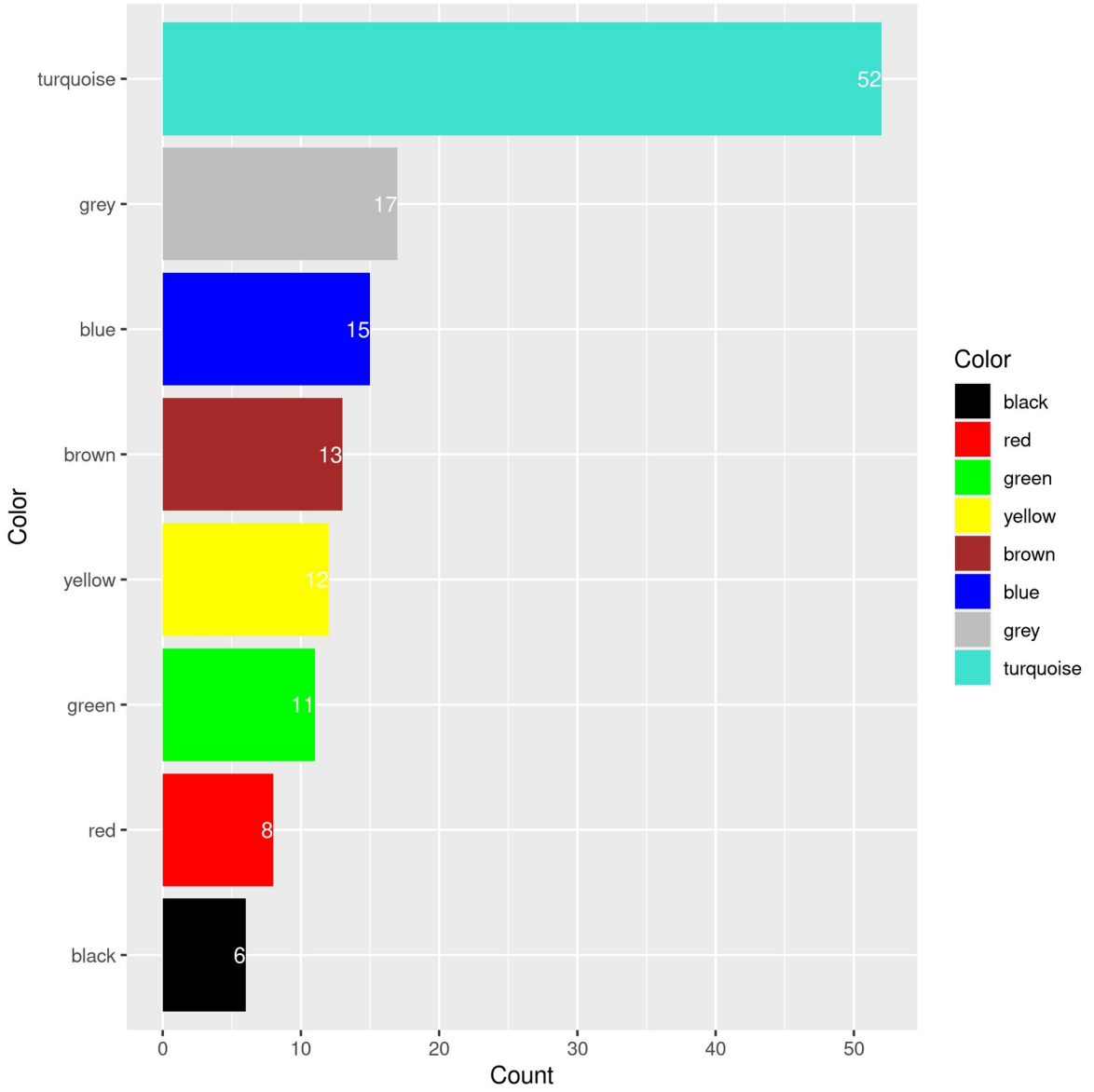
softConnectivity: Calculates connectivity of a weighted network.

Given expression data or a similarity, the function constructs the adjacency matrix and for each node calculates its connectivity, that is the sum of the adjacency to the other nodes.

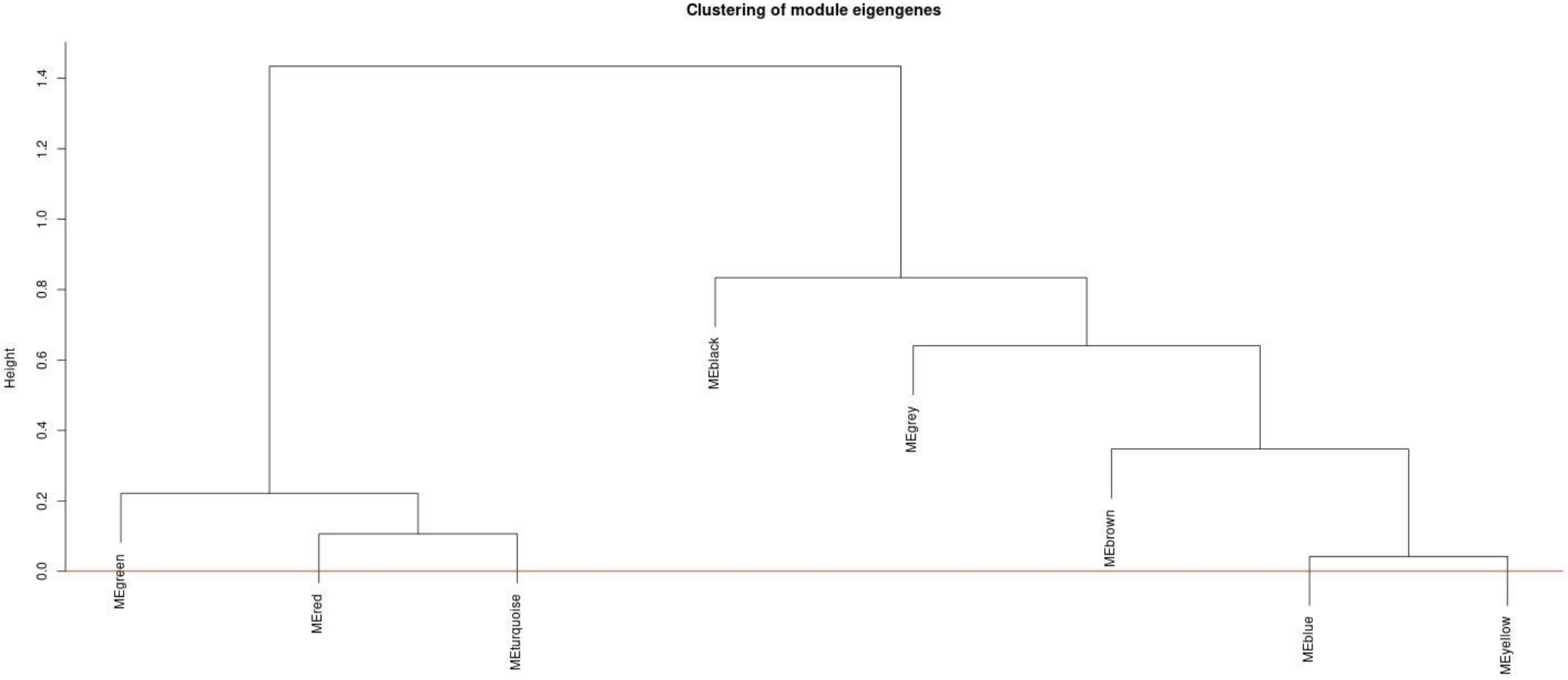
B73

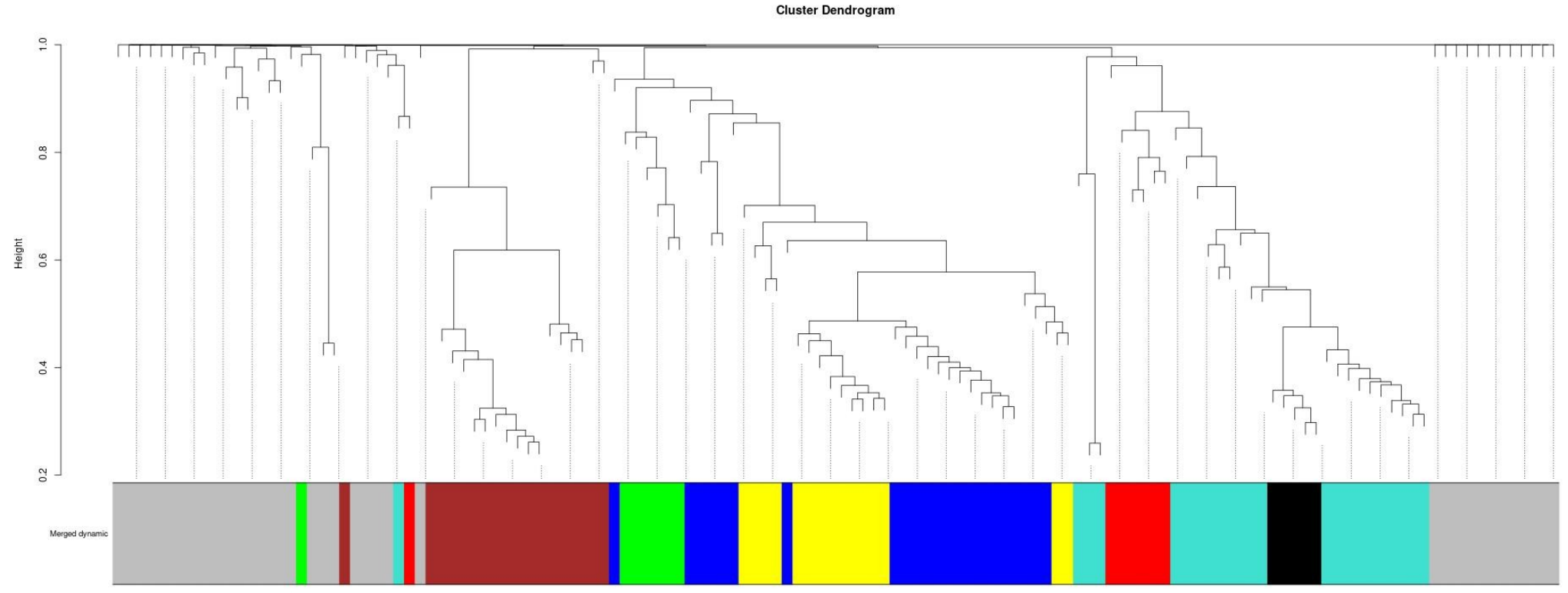

Clustering of module eigengenes
Height
0.0
0.2
0.4
0.6
0.8
1.0
MEblue
MEgrey
MEyellow
MEblack
MEbrown
MEred
MEgreen
MEturquoise

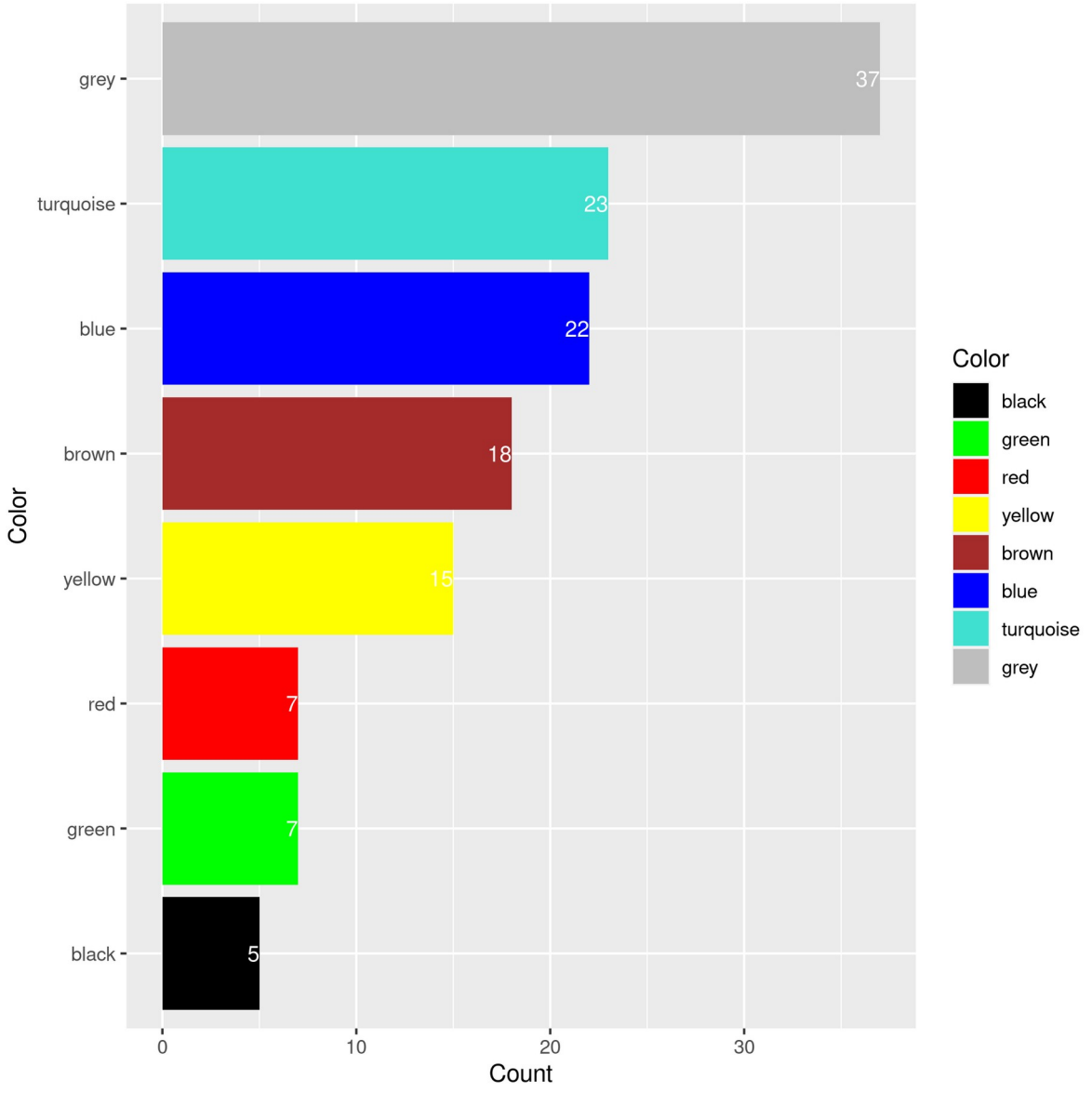

Cluster Dendrogram
Height
1.0
0.8
0.6
0.4
0.2
Merged dynamic

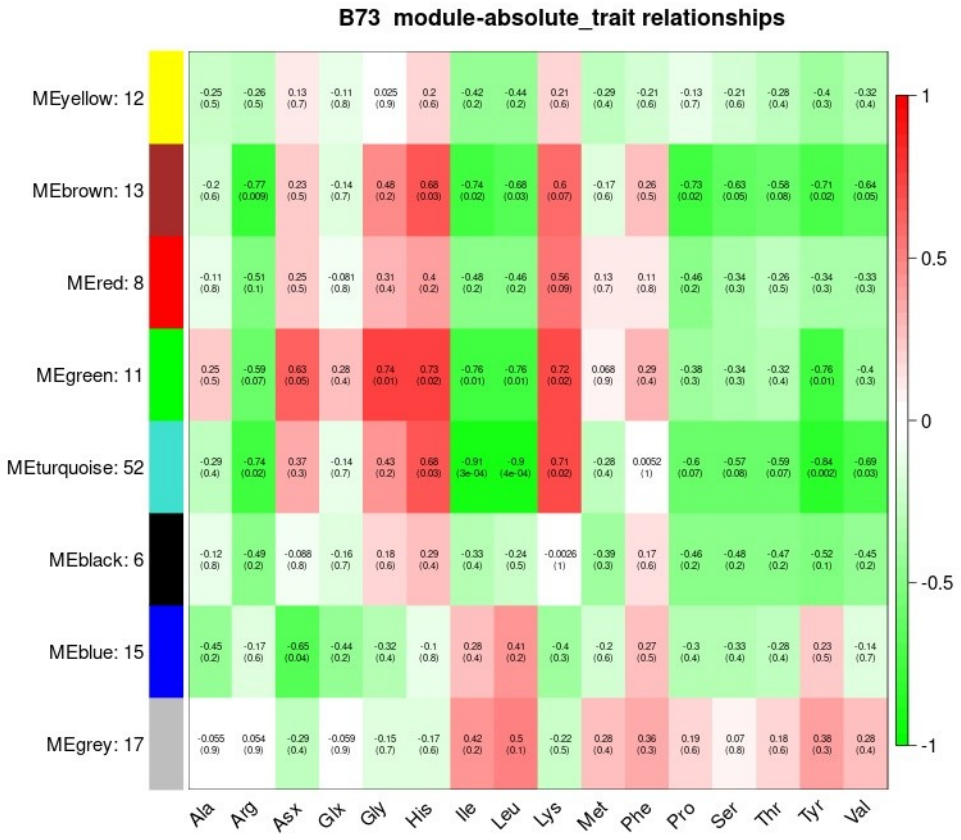

turquoise
grey
blue
brown
yellow
green
red
black
52
17
15
13
12
11
8
6
Color
0
10
20
30
40
50
Count
Color
black
red
green
yellow
brown
blue
grey
turquoise

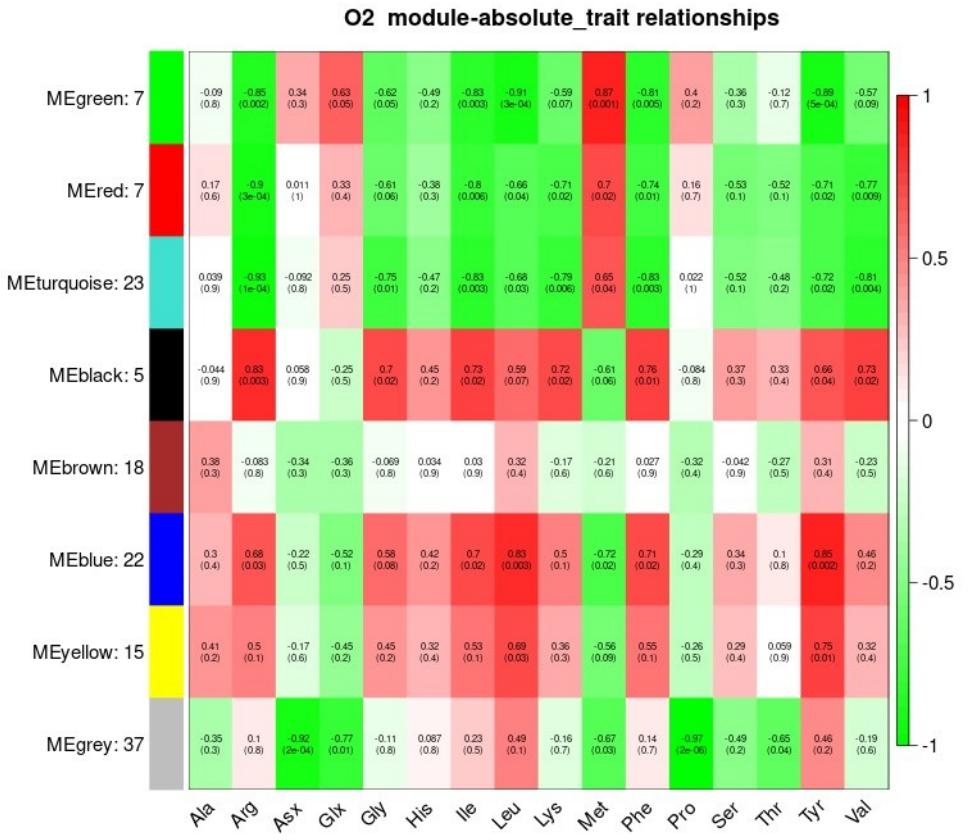
O2

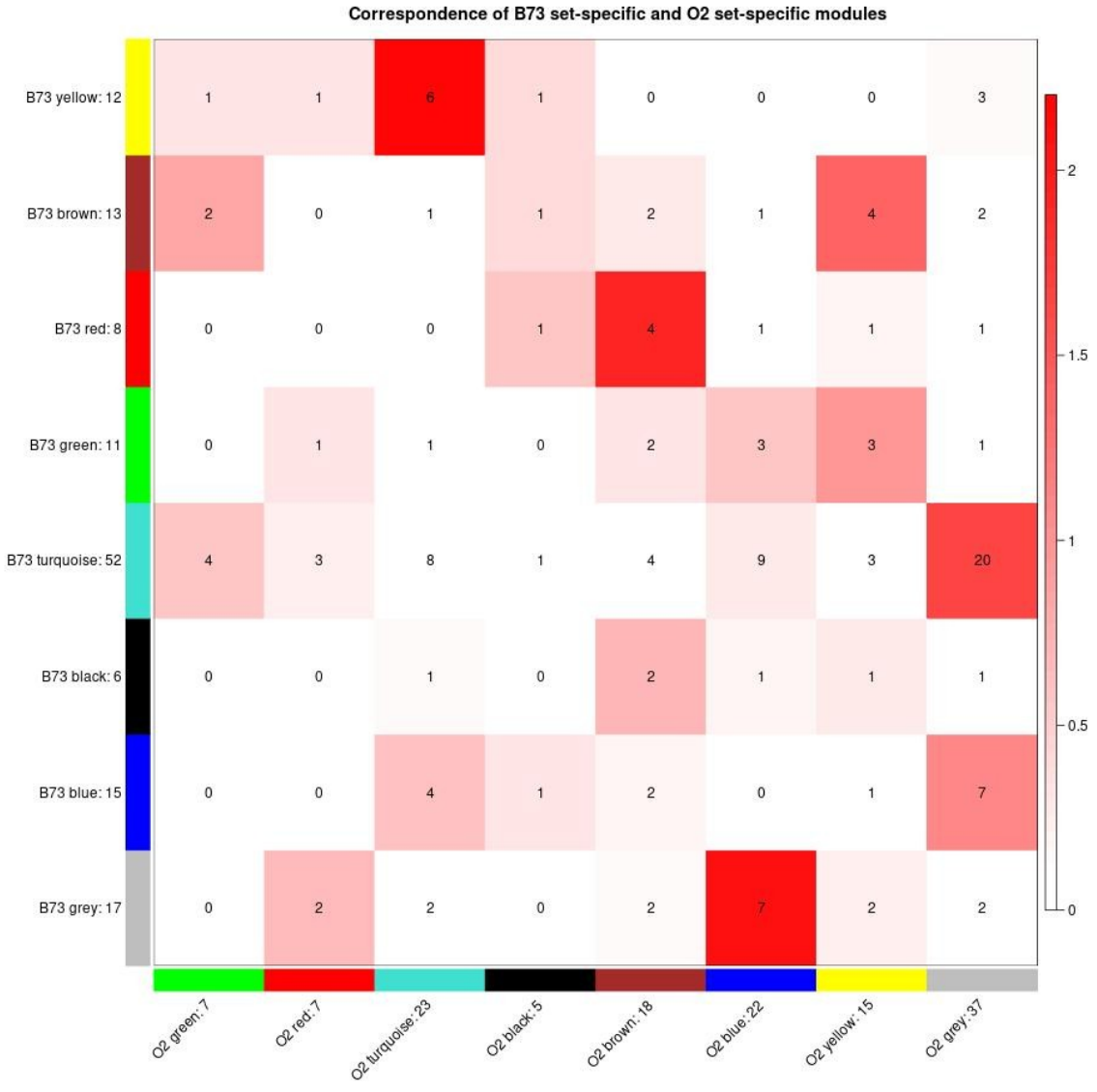

Clustering of module eigengenes
Height
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
MEgreen
MEred
MEturquoise
MEblack
MEgrey
MEbrown
MEblue
MEyellow

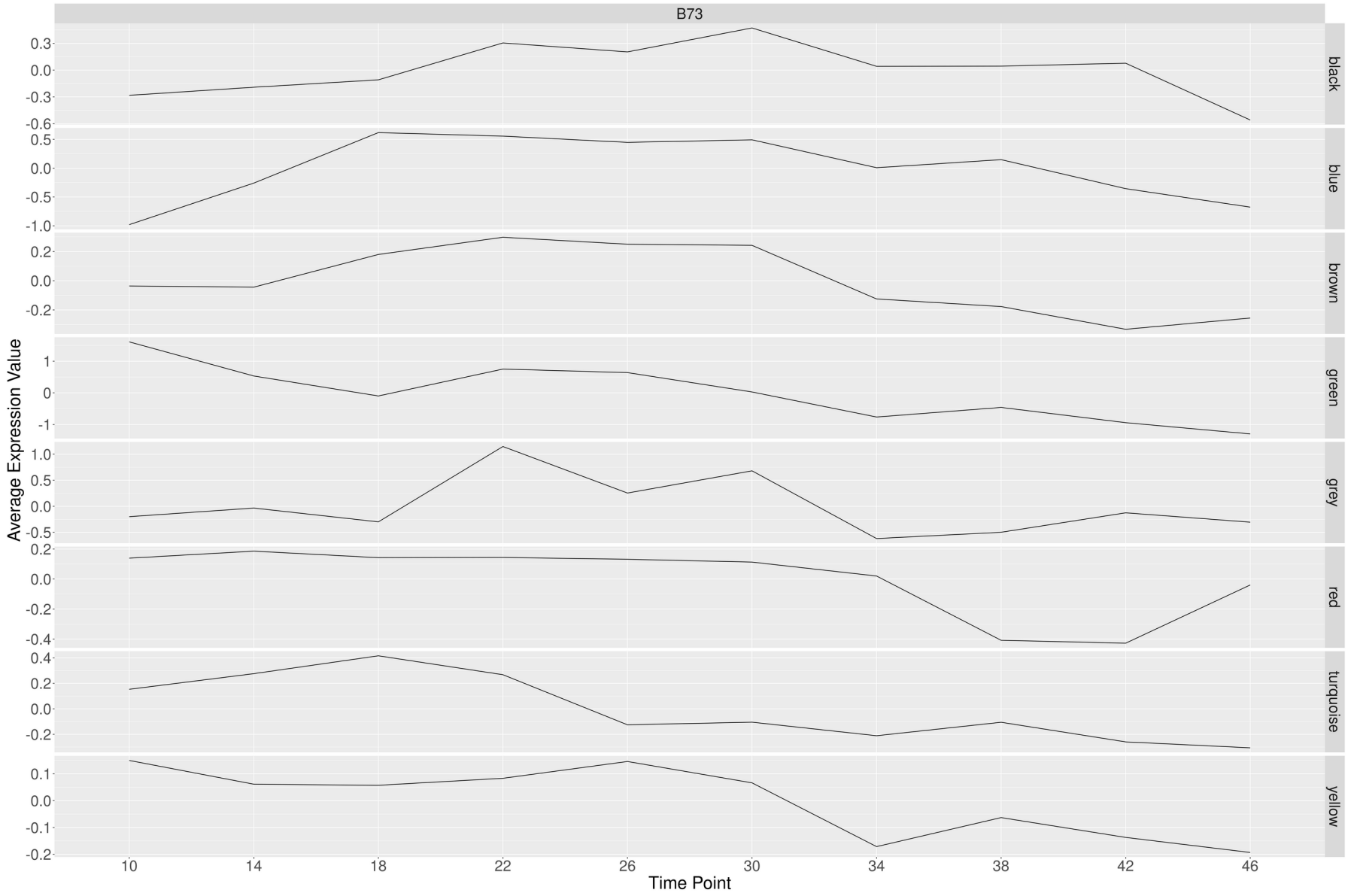

Cluster Dendrogram
Height
1.0
0.8
0.6
0.4
0.2
Merged dynamic

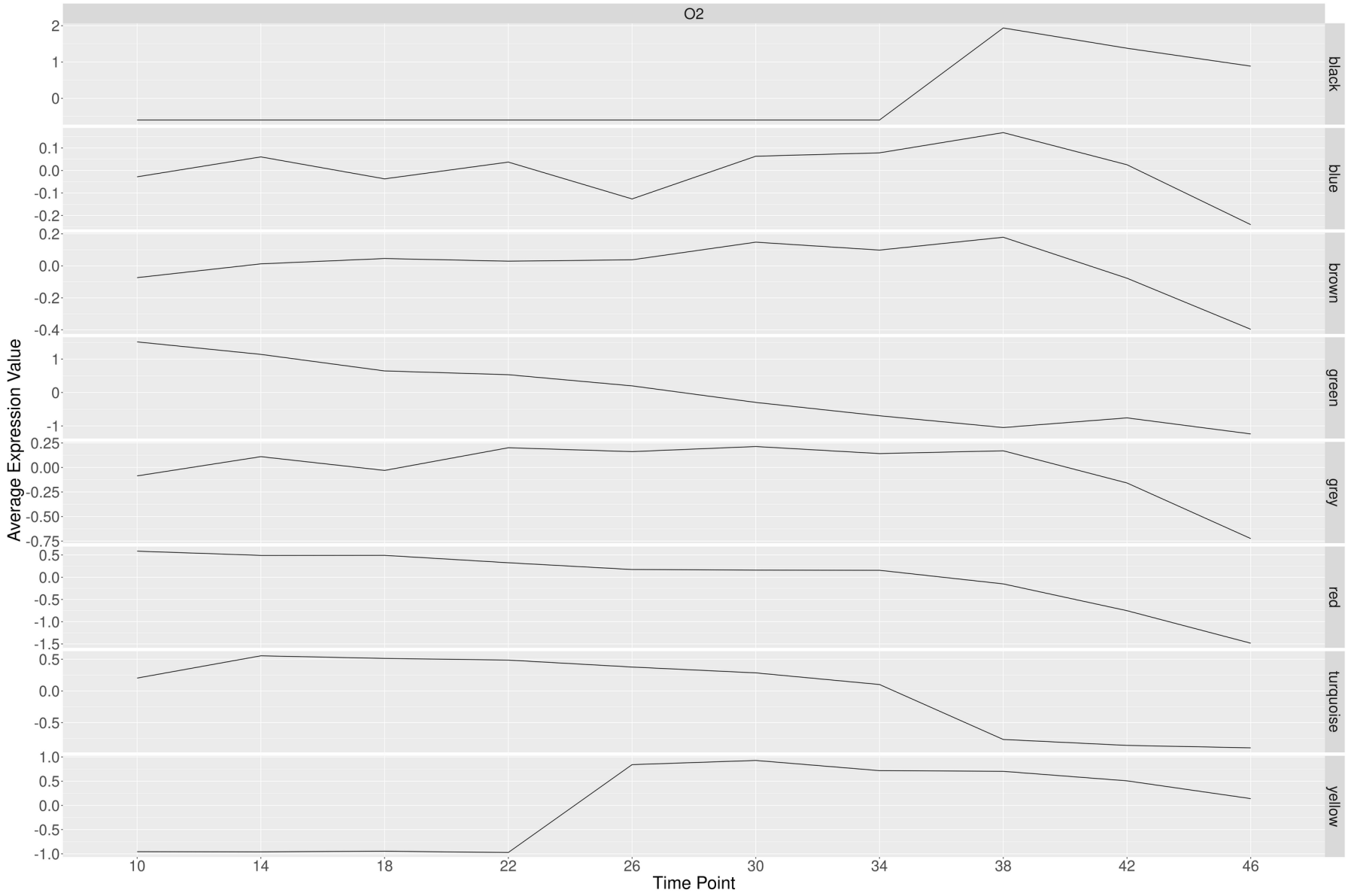

grey
turquoise
blue
brown
yellow
red
green
black
37
23
22
18
15
7
7
5
Color
0
10
20
30
Count
Color
black
green
red
yellow
brown
blue
turquoise
grey

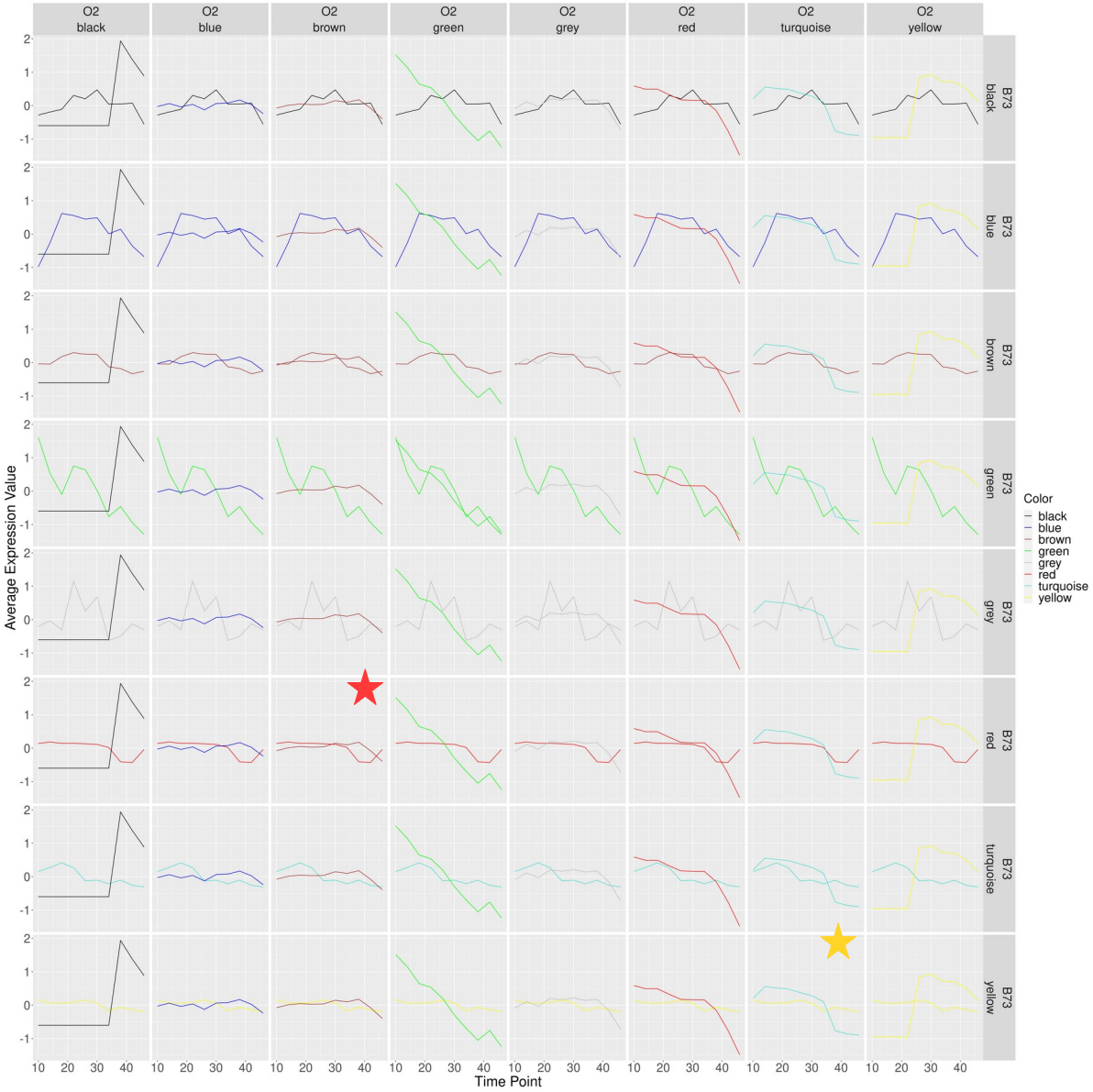

B73 module-absolute_trait relationships
MEyellow: 12
MEbrown: 13
MEred: 8
MEgreen: 11
MEturquoise: 52
MEblack: 6
MEblue: 15
MEgrey: 17
Ala
Arg
Asx
Glx
Gly
His
Ile
Leu
Lys
Met
Phe
Pro
Ser
Thr
Tyr
Val
1
0.5
0
-0.5
-1

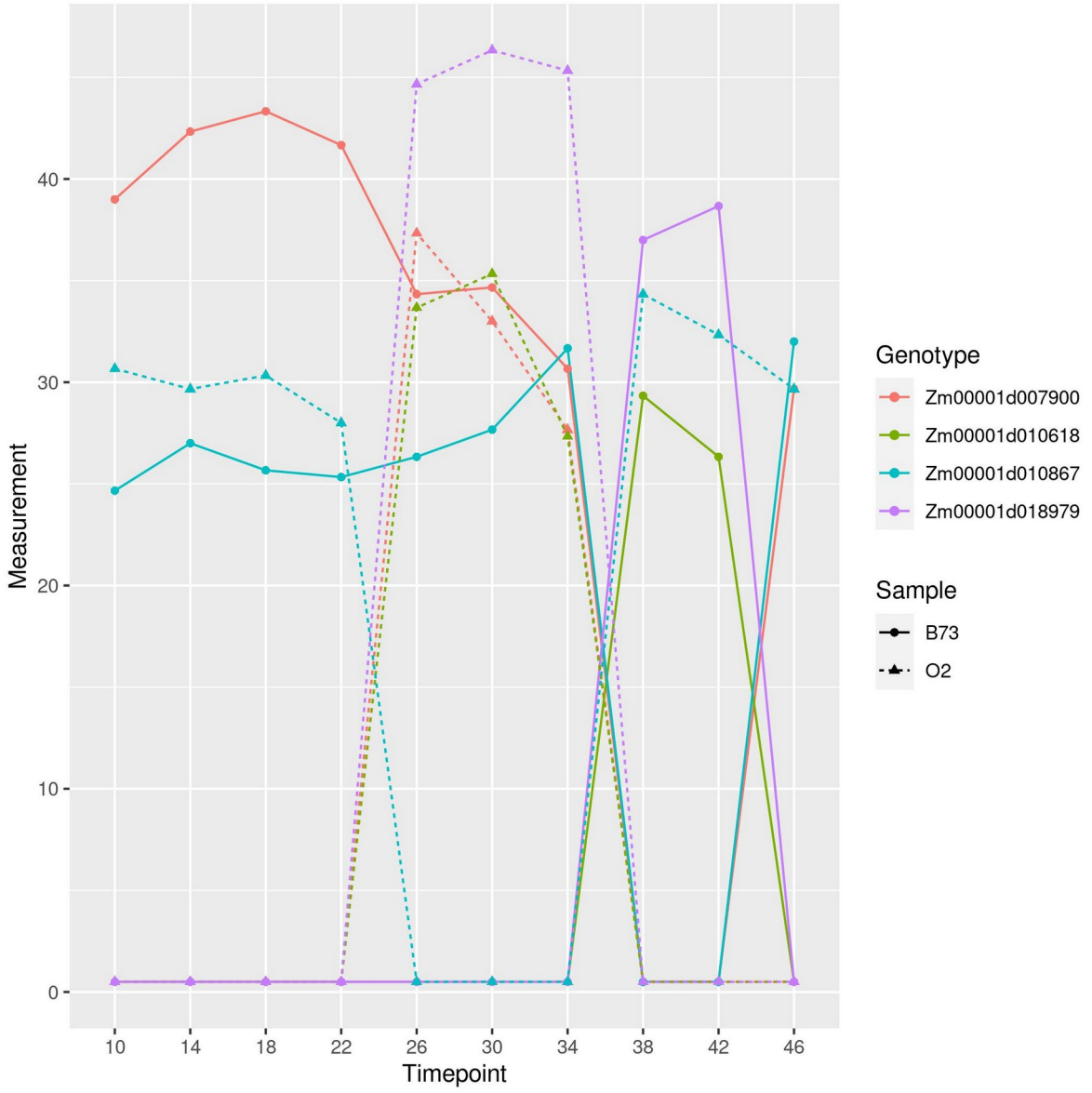

O2 module-absolute_trait relationships
MEgreen: 7
MEred: 7
MEturquoise: 23
MEblack: 5
MEbrown: 18
MEblue: 22
MEyellow: 15
MEgrey: 37
Ala
Arg
Asx
Glx
Gly
His
Ile
Leu
Lys
Met
Phe
Pro
Ser
Thr
Tyr
Val
1
0.5
0
-0.5
-1

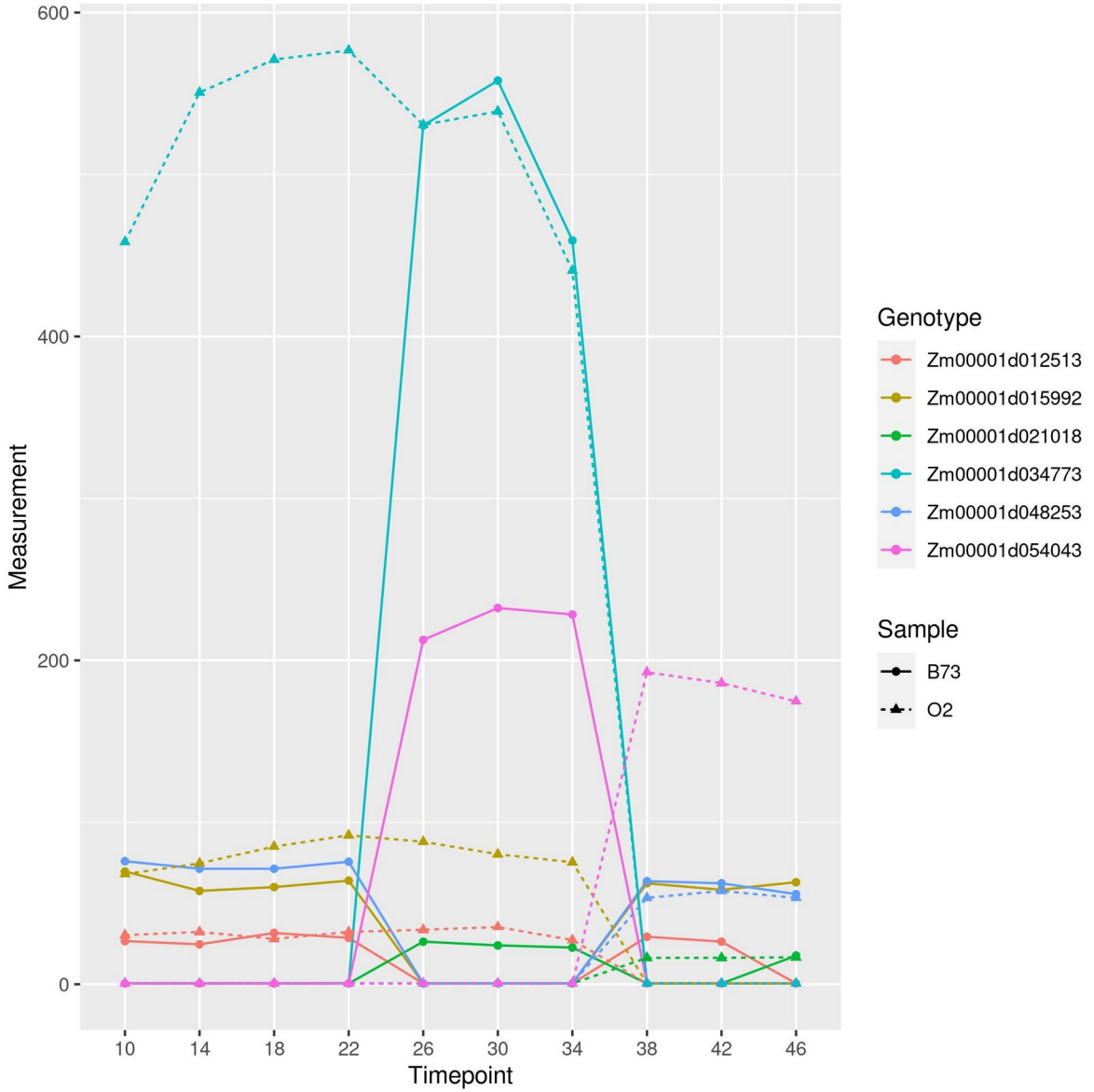

Correspondence of B73 set-specific and O2 set-specific modules
B73 yellow: 12
B73 brown: 13
B73 red: 8
B73 green: 11
B73 turquoise: 52
B73 black: 6
B73 blue: 15
B73 grey: 17
1 1 6 1 0 0 0 3
2 0 1 1 2 1 4 2
0 0 0 1 4 1 1 1
0 1 1 0 2 3 3 1
4 3 8 1 4 9 3 20
0 0 1 0 2 1 1 1
0 0 4 1 2 0 1 7
0 2 2 0 2 7 2 2
2
1.5
1
0.5
0
O2 green: 7
O2 red: 7
O2 turquoise: 23
O2 black: 5
O2 brown: 18
O2 blue: 22
O2 yellow: 15
O2 grey: 37


B73
black
blue
brown
green
grey
red
turquoise
yellow
Average Expression Value
Time Point
10
14
18
22
26
30
34
38
42
46


O2
black
blue
brown
green
grey
red
turquoise
yellow
Average Expression Value
Time Point
10
14
18
22
26
30
34
38
42
46


O2 black
O2 blue
O2 brown
O2 green
O2 grey
O2 red
O2 turquoise
O2 yellow
B73 black
B73 blue
B73 brown
B73 green
B73 grey
B73 red
B73 turquoise
B73 yellow
Average Expression Value
Time Point
Color
black
blue
brown
green
grey
red
turquoise
yellow


Measurement
40
30
20
10
0
10
14
18
22
26
30
34
38
42
46
Timepoint
Genotype
Zm00001d007900
Zm00001d010618
Zm00001d010867
Zm00001d018979
Sample
B73
O2


600
400
200
0
Measurement
10
14
18
22
26
30
34
38
42
46
Timepoint
Genotype
Zm00001d012513
Zm00001d015992
Zm00001d021018
Zm00001d034773
Zm00001d048253
Zm00001d054043
Sample
B73
O2