

Tutorial for EasyPubPlot

Heatmap

Step 1: Prepare the Input Data

1. Prepare the input data file with columns of sample names and rows of feature names.

	A	B	C	D	E	F	G	H	I	J	K	L
1		Sample1	Sample2	Sample3	Sample4	Sample5	Sample6	Sample7	Sample8	Sample9	Sample10	
2	Feature1	6.414781	7.348653	5.44988	5.404979	6.229203	4.412215	4.232352	3.320935	4.683136	4.225894	
3	Feature2	6.435047	6.156031	6.861439	6.587949	6.752088	8.340621	8.105698	8.201584	8.015319	8.004735	
4	Feature3	9.014991	8.361876	8.260597	8.832954	7.989574	5.506586	4.989704	5.051869	5.684248	5.117263	
5	Feature4	7.6506	8.625123	9.412192	9.233871	9.143033	11.60331	11.15601	11.77254	11.3553	11.41116	
6	Feature5	2.513956	2.505914	2.252432	2.398476	2.813189	5.110482	4.866051	6.461958	4.739429	6.170013	
7	Feature6	5.490659	5.055548	6.048919	5.639597	5.798297	8.994013	8.625811	8.96273	7.868652	8.649753	
8	Feature7	6.753374	6.706764	6.719683	6.361063	6.396258	8.684102	8.154864	8.695373	7.321512	8.543458	
9	Feature8	8.190091	8.04319	8.820218	8.787505	7.801053	7.28055	7.29583	6.097464	6.666148	6.47614	
10	Feature9	7.022594	7.709266	7.294025	7.225978	7.288992	12.59513	12.4502	12.50665	11.61863	12.15144	
11	Feature10	6.72579	6.750843	7.147774	6.81859	7.102108	9.915999	9.809449	10.07367	9.806063	9.952044	
12	Feature11	10.81282	10.88239	10.79092	10.14175	9.901224	6.884237	9.000895	8.040718	7.711069	9.513409	
13	Feature12	4.011857	5.332292	6.324431	6.329219	5.94302	7.547227	6.734616	8.066804	6.802657	7.328118	
14	Feature13	8.210749	7.879756	8.638244	7.790391	9.086885	9.651523	10.13135	9.302558	10.19425	10.25901	
15	Feature14	7.459436	6.714707	5.342237	6.255591	5.479183	8.591265	7.100877	9.333213	7.106466	8.012432	
16	Feature15	3.138966	2.985229	3.970998	3.350697	4.020235	8.235132	7.694905	7.740914	7.969374	7.927195	

Step 1: Prepare the Input Data

2. Prepare the metadata file with identical column names (“**Sample**” and “**GroupLevel1**”).

	A	B	C	
1	Sample	GroupLevel1		
2	Sample1	Group1		
3	Sample2	Group1		
4	Sample3	Group1		
5	Sample4	Group1		
6	Sample5	Group1		
7	Sample6	Group2		
8	Sample7	Group2		
9	Sample8	Group2		
10	Sample9	Group2		
11	Sample10	Group2		
12				

Step 2: Upload the Data

1. Select tab “Heatmap”.
2. Select subtab “Data Upload”.
3. Upload the metadata file and normalized data file.

EASYPUBPLOT INTRODUCTION VOLCANO PLOT **HEATMAP** SCORES PLOT BOX PLOT TUTORIALS

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Data Upload Group Heatmap colors

Text & Size Clustering Save Plot

Upload Metadata File:

BROWSE... HeatmapSimple_ExampleMetaData_1.csv

Upload complete

Upload Normalized Data File:

BROWSE... HeatmapSimple_ExampleNormData_1.csv

Upload complete

Step 3: Modify the Heatmap

1. Select subtab “Group”.

- Select options “Select and Order Group Level” to select/delete groups or modify the group order.

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Data Upload **Plot Appearance**

Heatmap Colors Text & Size

Clustering Save Plot

Select and Order Group Levels

Group1 **Group2**

Color for Group1 Group:

#323232

Color for Group2 Group:

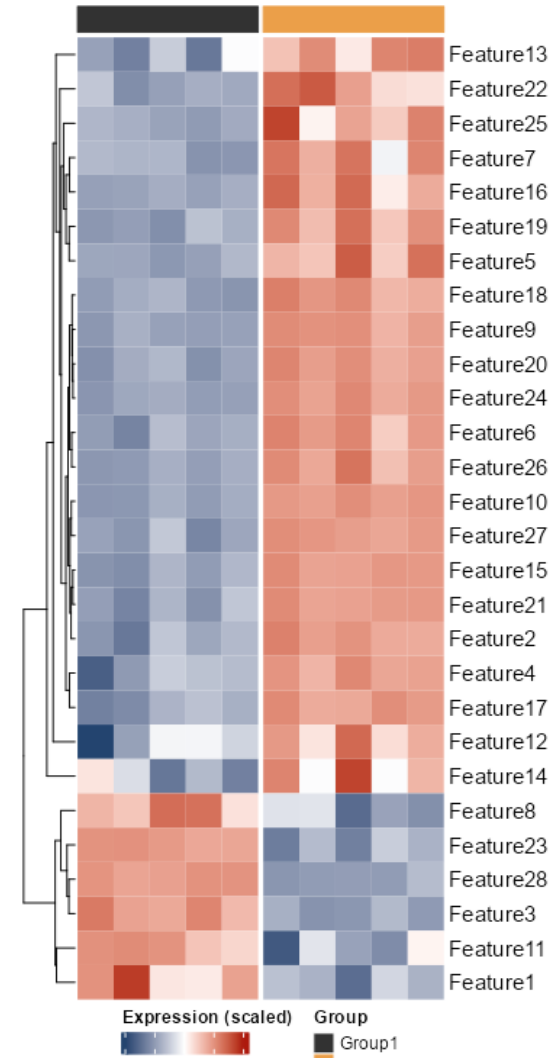
#EB9F49

Legend label for Group1 Group:

Group1

Legend label for Group2 Group:

Group2



Step 3: Modify the Heatmap

1. Select subtab “Group”.

- Select options “Color for Group” to modify the appropriate color for each group.

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Select and Order Group Levels

Group1 Group2

Color for Group1 Group:

#323232

Color for Group2 Group:

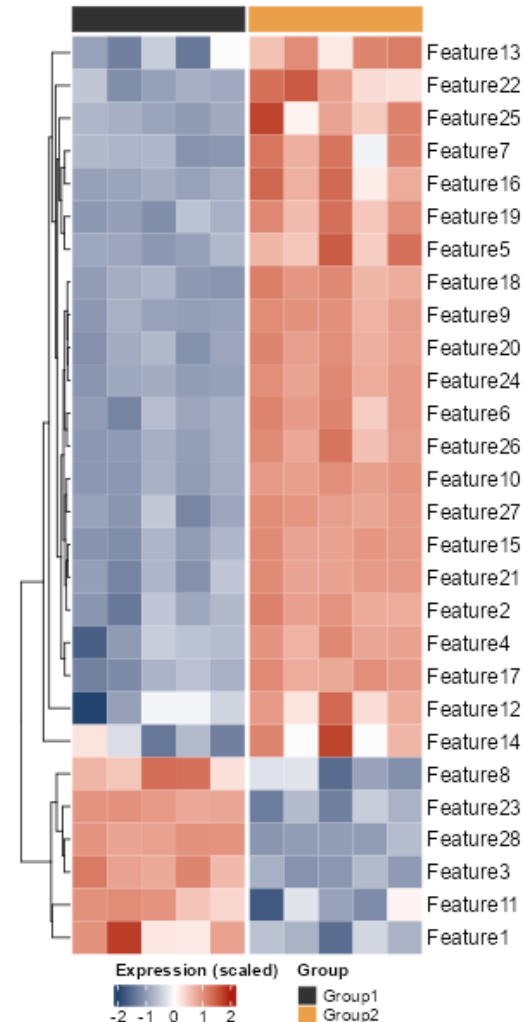
#EB9F49

Legend label for Group1 Group:

Group1

Legend label for Group2 Group:

Group2



Step 3: Modify the Heatmap

1. Select subtab “Group”.

- Modify the legend label for each group.

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Data Upload

Group

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Select and Order Group Levels

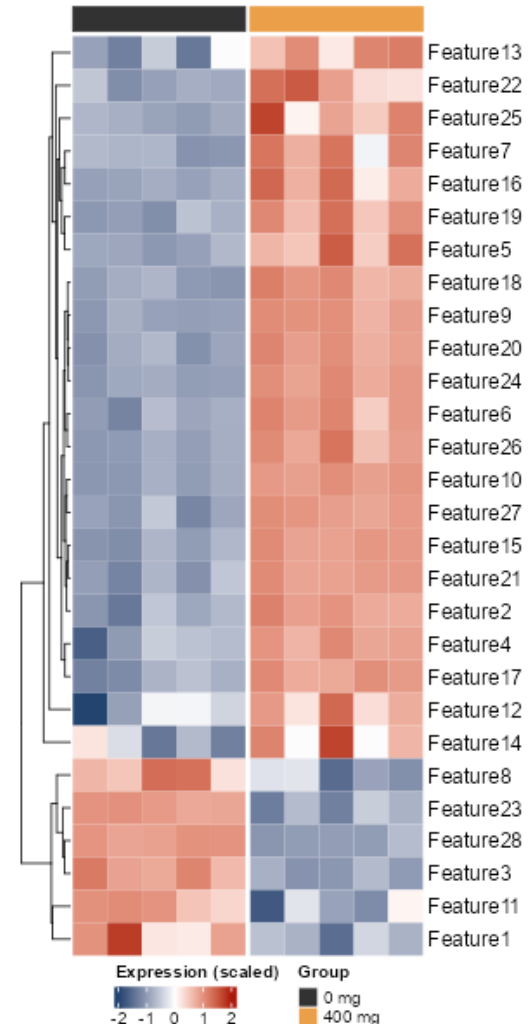
Group1 Group2

Color for Group1 Group:
#323232

Color for Group2 Group:
#EB9F49

Legend label for Group1 Group:
0 mg

Legend label for Group2 Group:
400 mg



Step 3: Modify the Heatmap

2. Select subtab “Heatmap colors”.

- Select the appropriate colors for down-regulation, unchange and up-regulation.
- Select option “Color Scale” to modify the color scale.

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Down-regulation Color:

#23446F

Unchange Color:

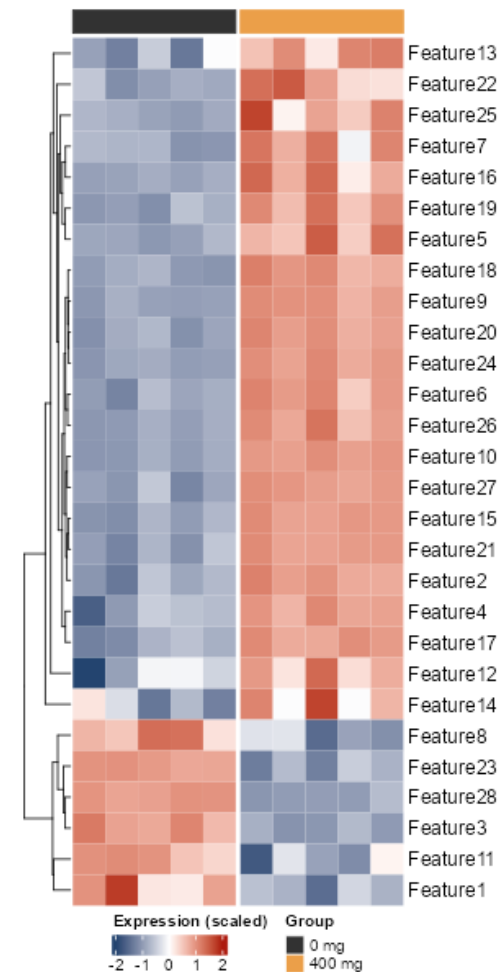
#FFFFFF

Up-regulation Color:

#AD190D

Color Scale:

2



Step 3: Modify the Heatmap

3. Select subtab “Text & Size”.

- Select option “Features Size” to modify the size of feature names.
- Select option “Italic Text” to change the format of feature name to italic.

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Data Upload Group Heatmap colors

Text & Size Clustering Save Plot

Features Size:

12

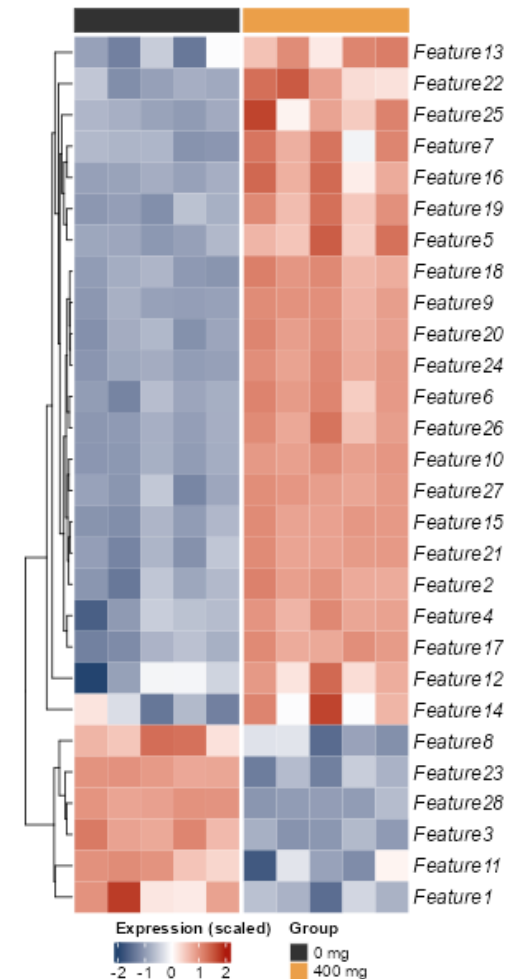
☒ Italic Text

Level-1 Annotation:

Group

Heatmap Annotation:

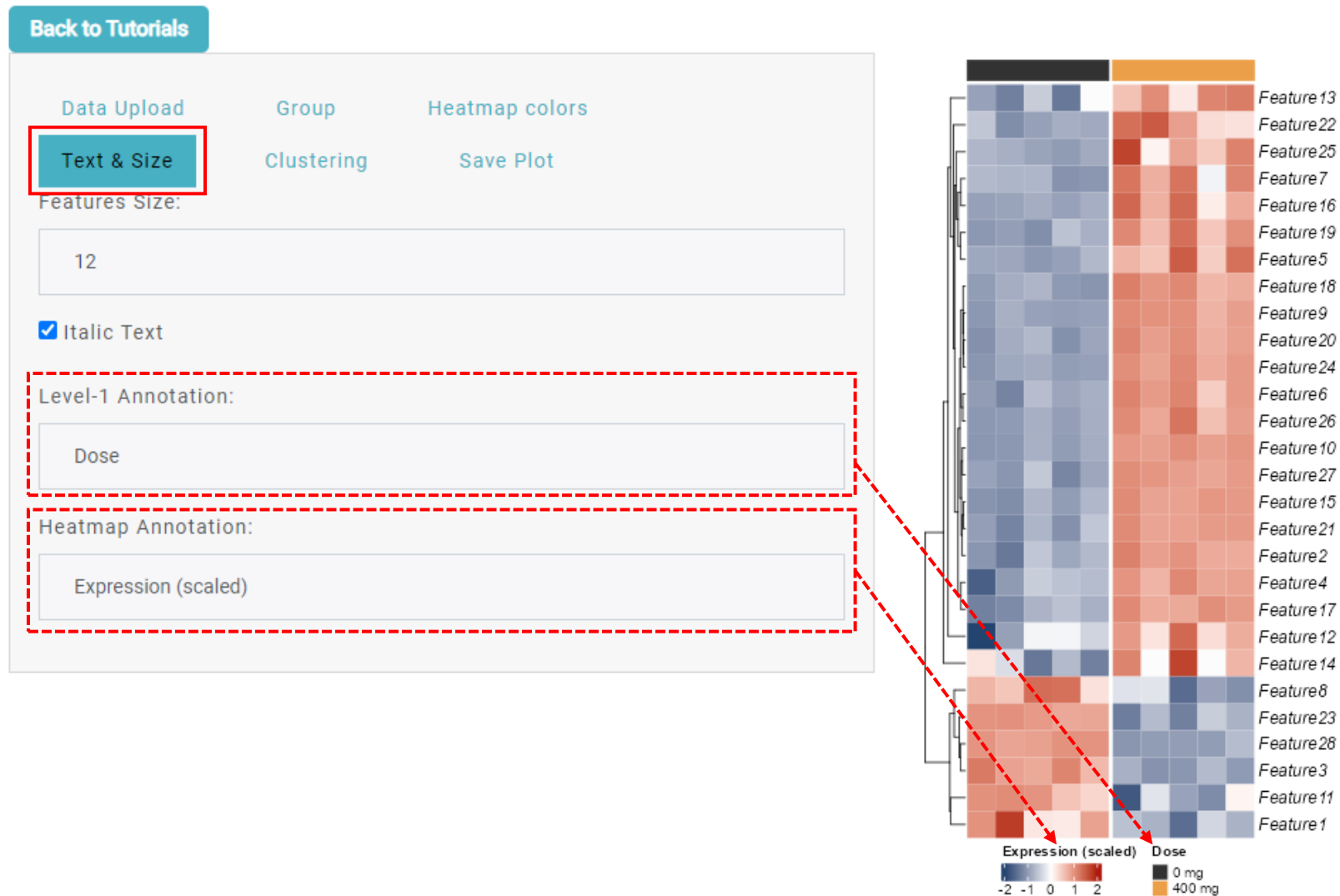
Expression (scaled)



Step 3: Modify the Heatmap

3. Select subtab “Text & Size”.

- Select options “Level-1 Annotation” and “Heatmap Annotation” to modify the corresponding label legends.



Step 3: Modify the Heatmap

4. Select subtab “Clustering”.

- Select the options “Cluster Row” and/or “Cluster Column” to cluster the heatmap by row and/or column.

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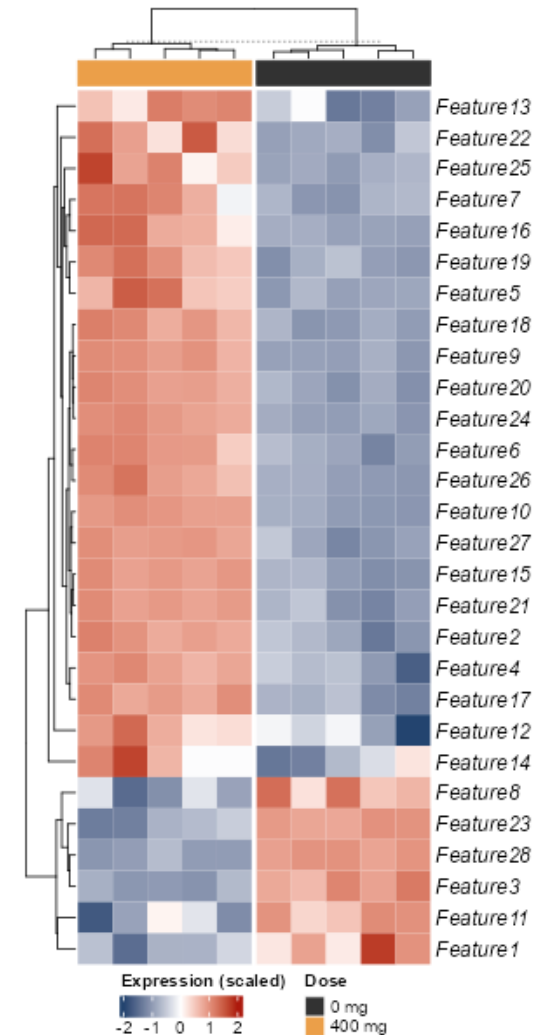
Data Upload Group Heatmap colors

Text & Size **Clustering** Save Plot

☒ Cluster Row

☒ Cluster Column

☐ Show Column Name



Note: The cluster of rows is displayed, and the cluster of columns is not displayed as the default settings.

Step 3: Modify the Heatmap

4. Select subtab “Clustering”.

- Select the options “Show Column Name” to display the sample name.

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Data Upload

Text & Size

☒ Cluster Row

☒ Cluster Column

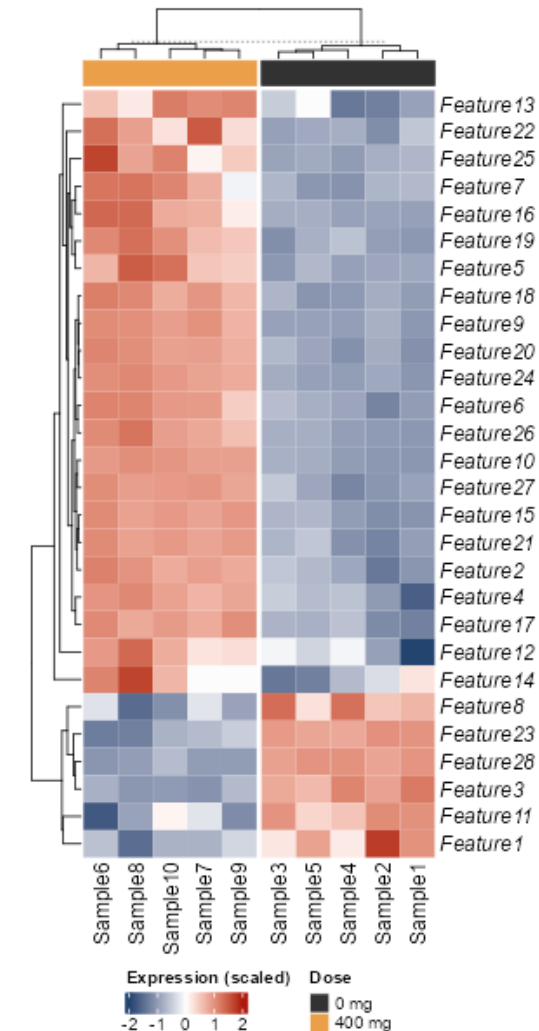
☒ Show Column Name

Group

Clustering

Heatmap colors

Save Plot



Note: The column names (sample names) are not displayed as a default setting.

Step 4: Export the Heatmap

Select subtab “Save Plot”

- Select the appropriate sizes (**Plot Width** and **Plot Height**) and resolution for the exported figure.
- Select option “Download Plot as .png” to export the figure.

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Data Upload Group Heatmap colors

Text & Size Clustering **Save Plot**

Plot Width (in pixels):


300

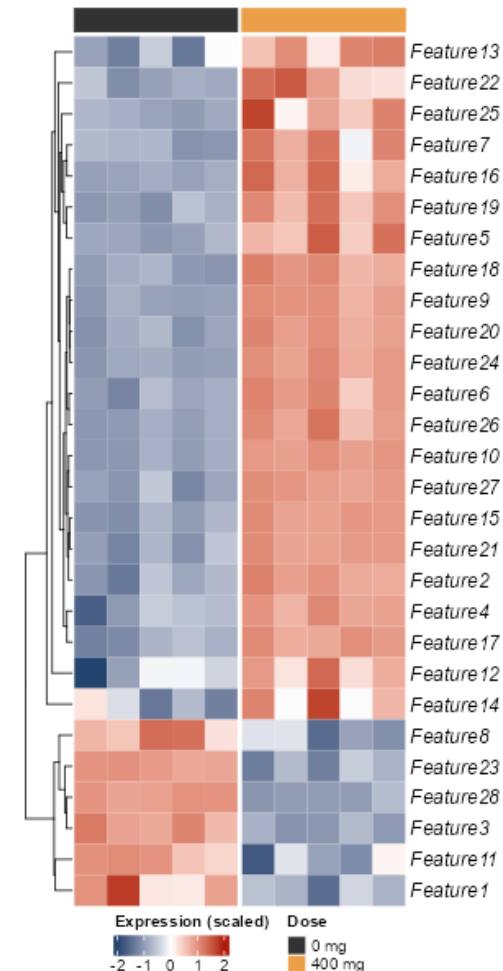
Plot Height (in pixels):

600

DPI for Saving:

600

 DOWNLOAD PLOT AS .PNG



Note: Figure should be exported at 300 dpi or higher.