

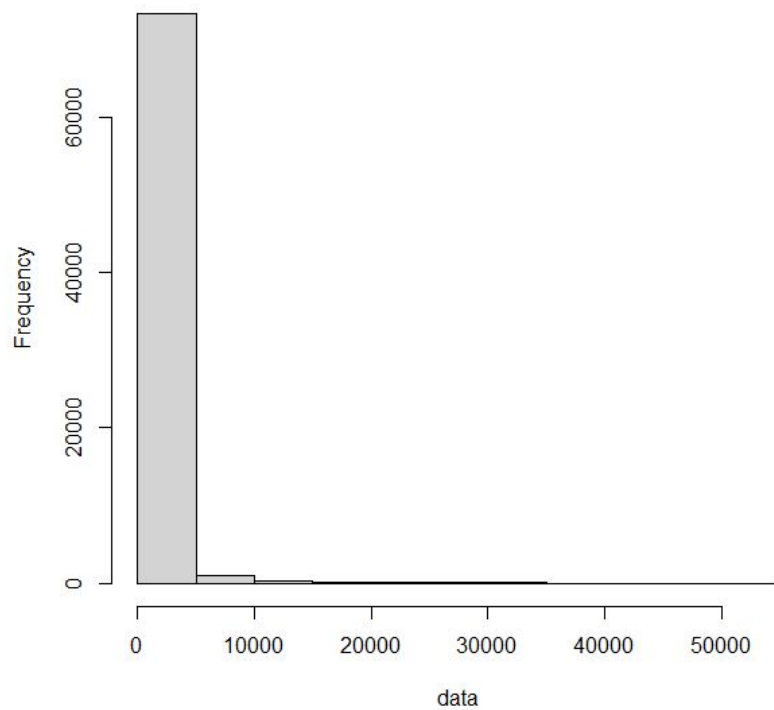
Imágenes obtenidas

Práctica 1

Marta Muria Cabrero
Bioinformática
NP: 130955

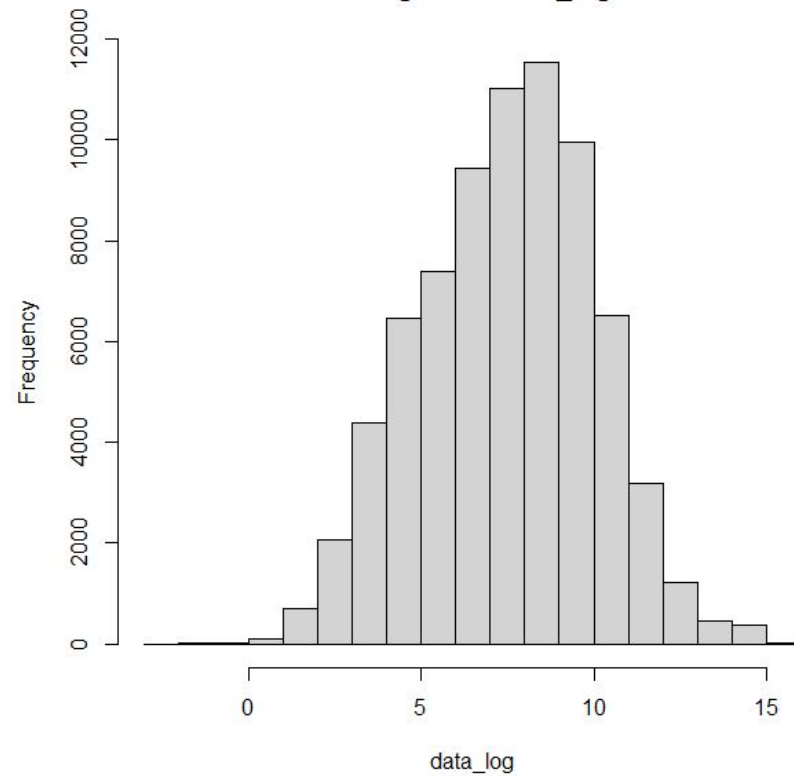


Histogram of data

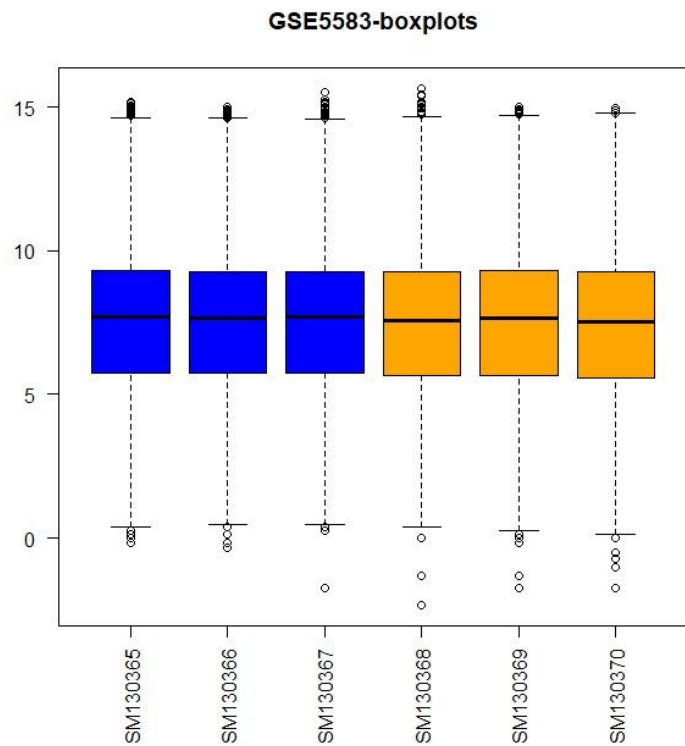
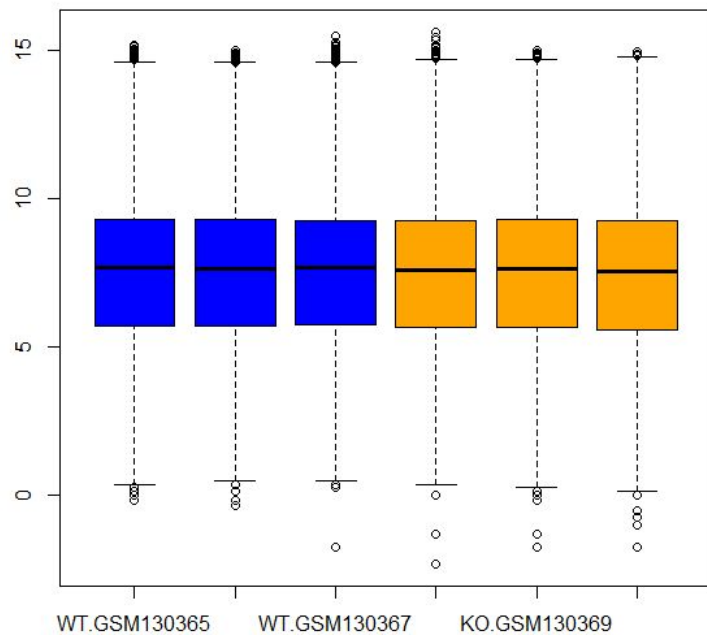


```
hist(data)
```

Histogram of data_log

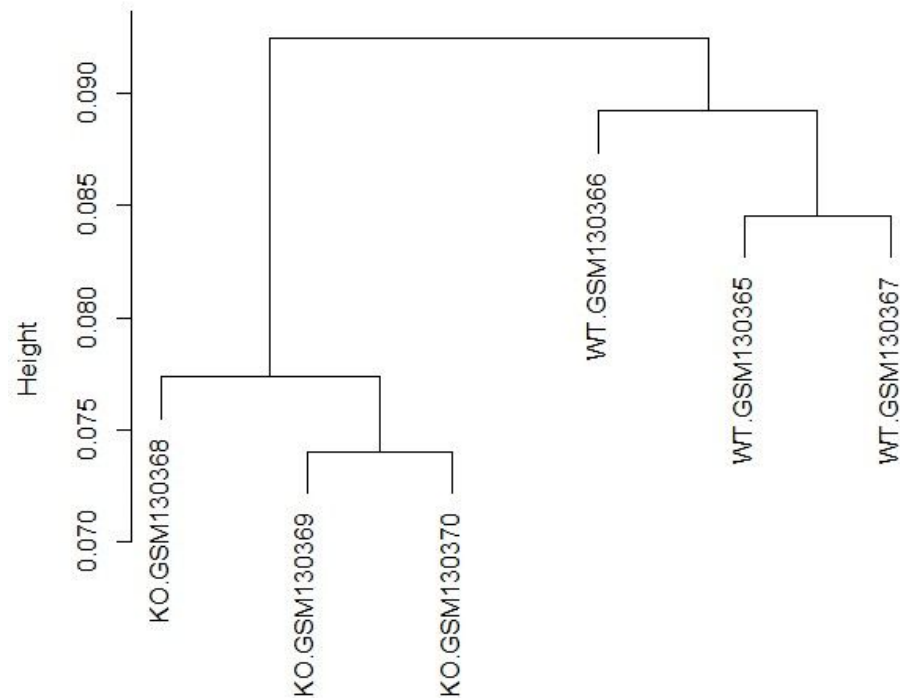


```
data_log=log2(data)  
hist(data_log)
```



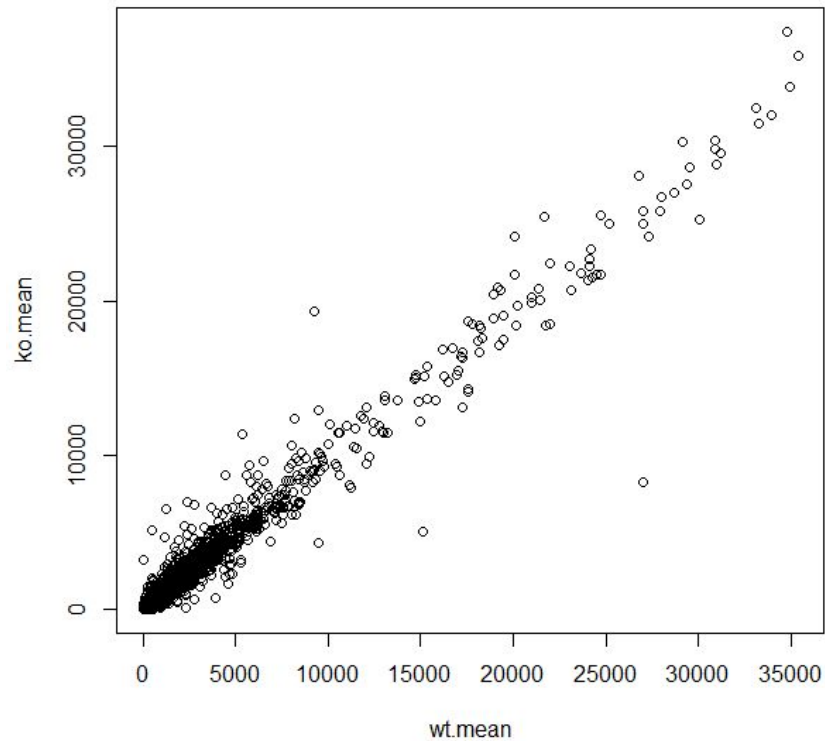
```
boxplot(data_log,
col=c("blue","blue","blue","orange","orange","orange")
, main="GSE5583-boxplots",las=2)
```

GSE5583 - Hierarchical Clustering



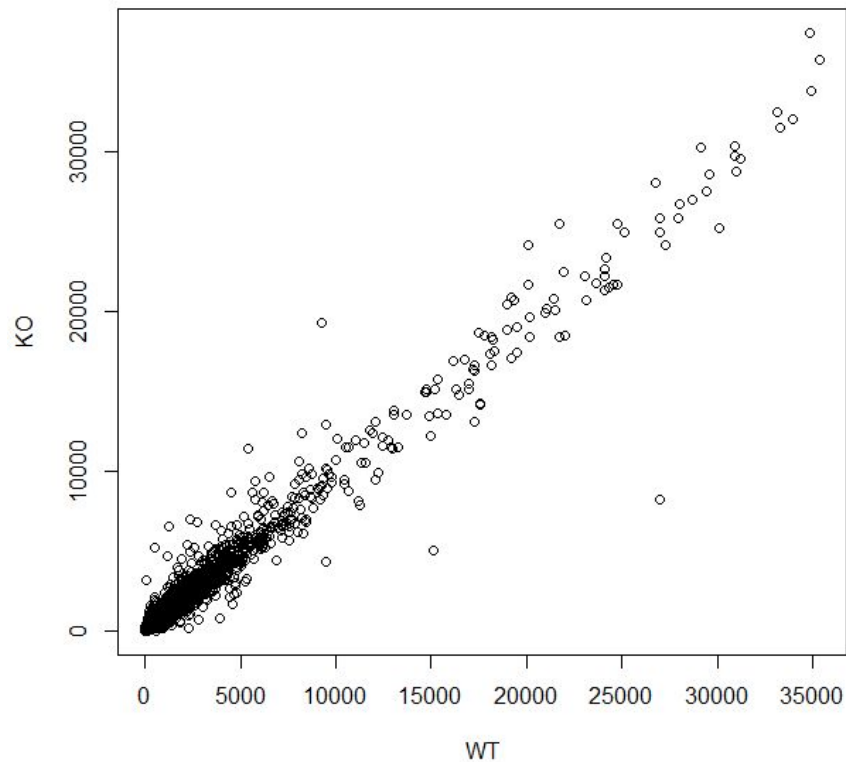
```
as.dist(1 - cor(data_log))  
hclust(*, "complete")
```

```
hc =  
hclust(as.dist(1-cor(data_log)))  
plot(hc, main="GSE5583 -  
Hierarchical Clustering")
```



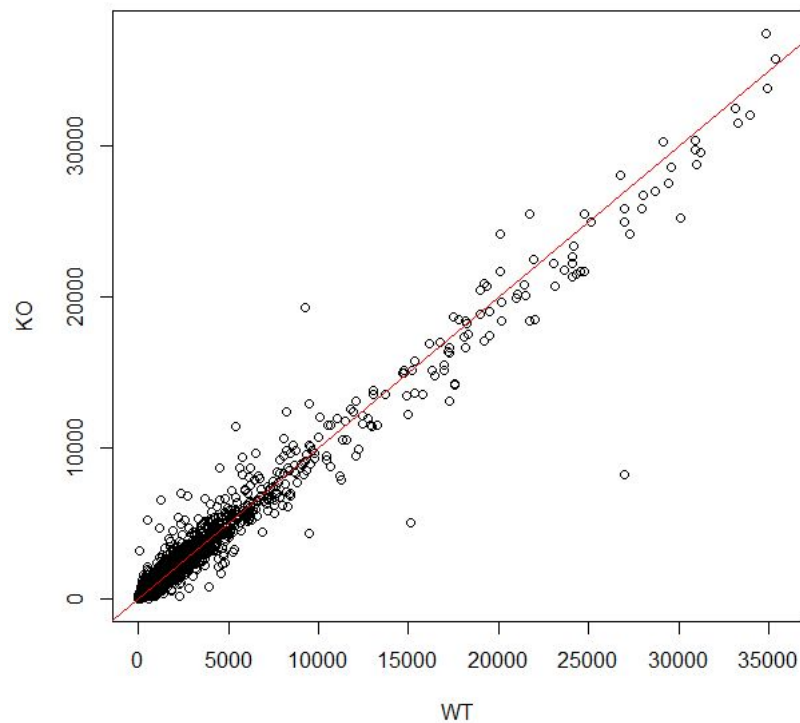
```
plot(ko.mean ~ wt.mean)
```

GSE5583 - Grafico de dispersion



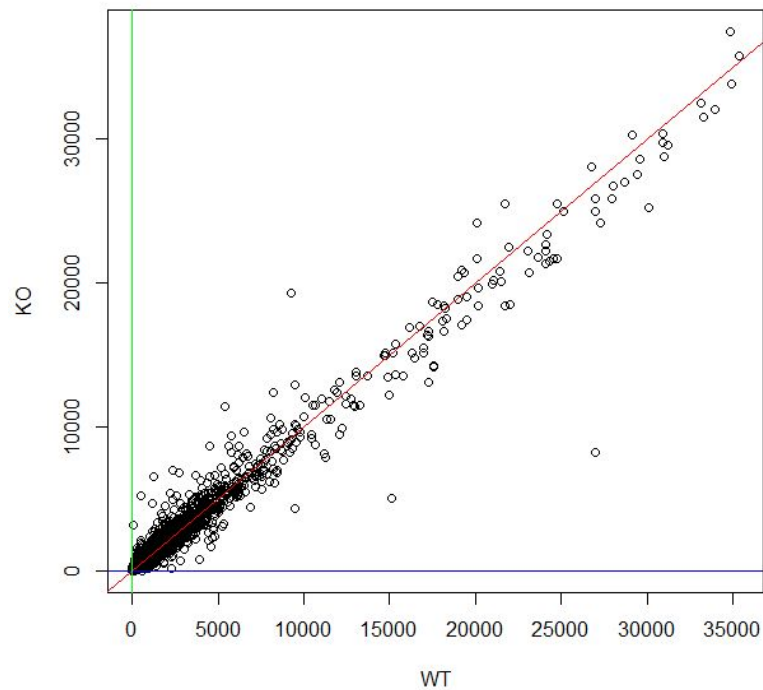
```
plot(ko.mean ~ wt.mean,xlab = "WT",  
ylab = "KO", main="GSE5583 -  
Grafico de dispersion")
```

GSE5583 - Grafico de dispersion



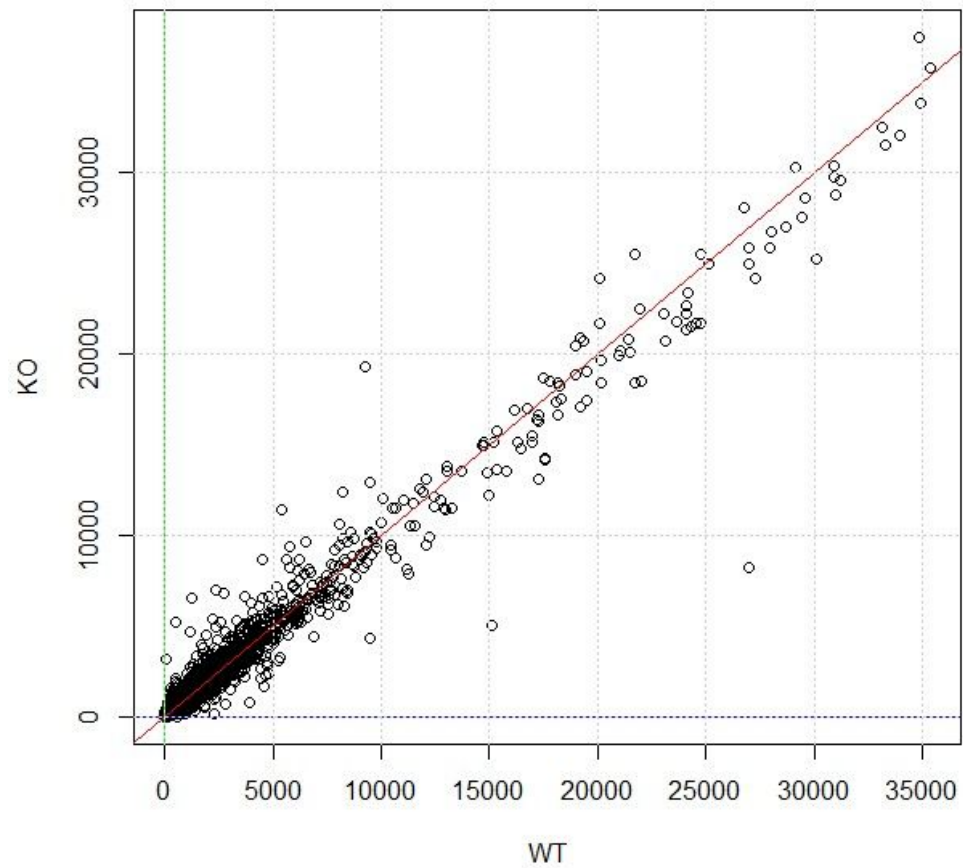
```
abline(0,1,col="red")
```

GSE5583 - Grafico de dispersion



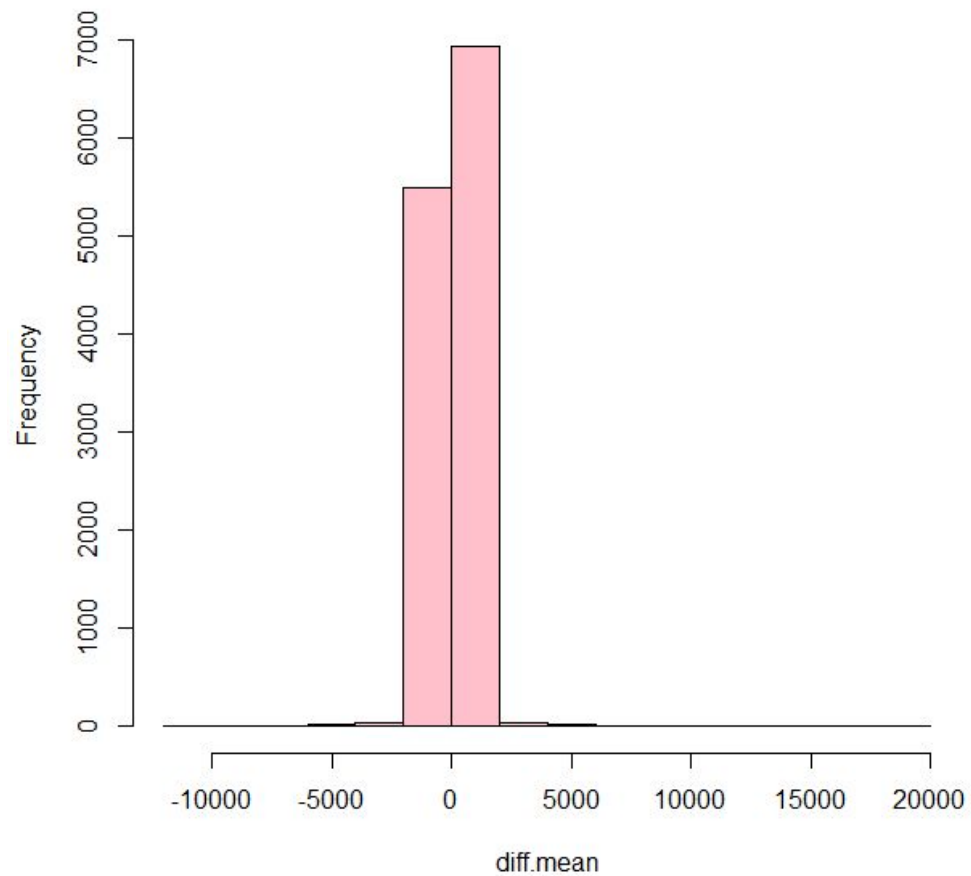
```
abline(h=2,col="blue")  
abline(v=5,col="green")
```

GSE5583 - Grafico de dispersion



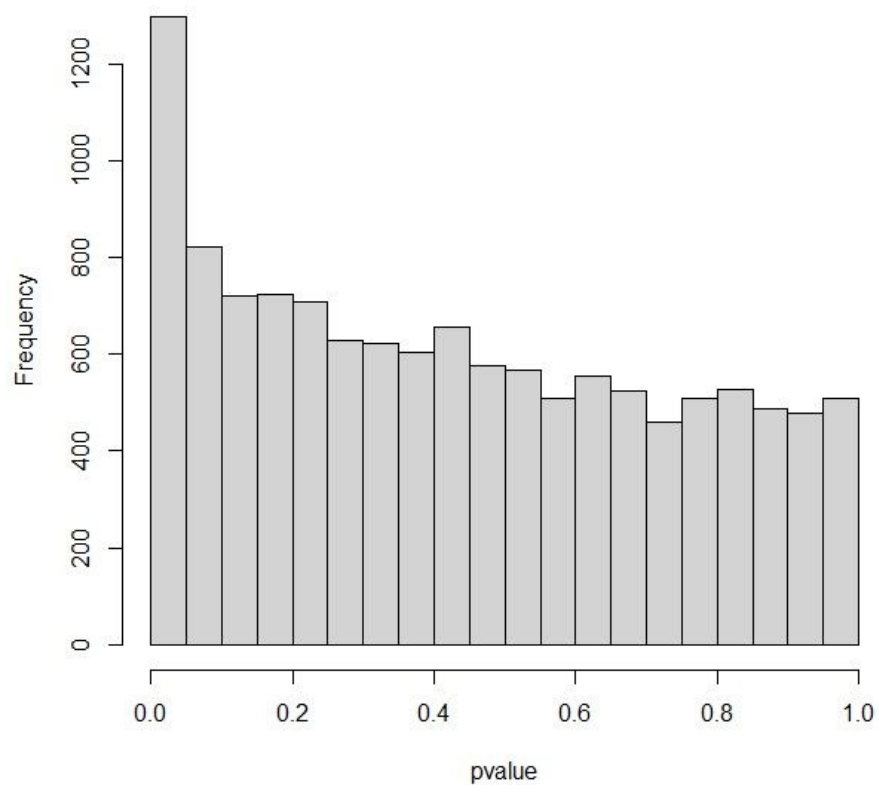
`grid()`

Histogram of diff.mean



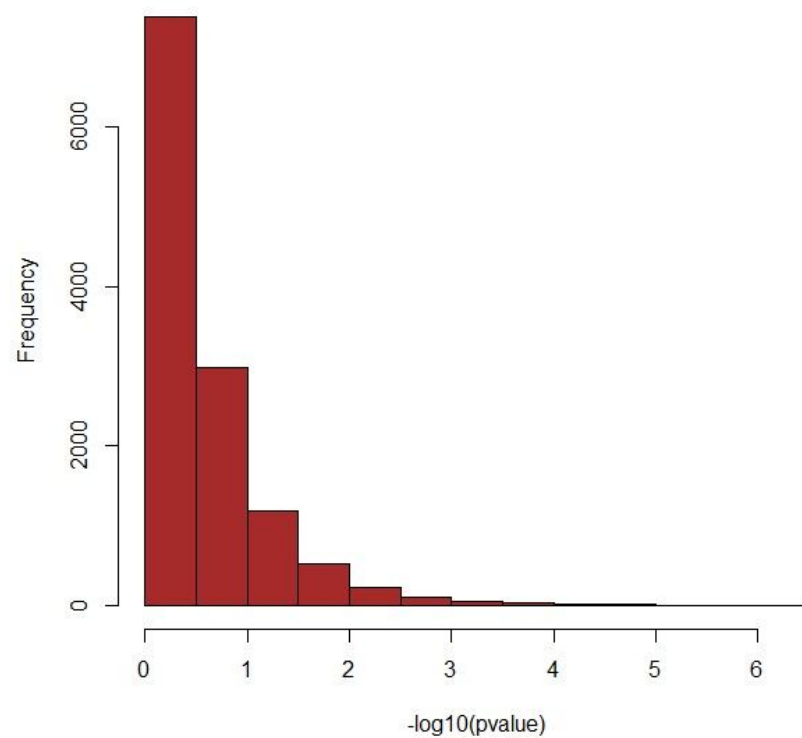
```
hist(diff.mean,col="pink")
```


Histogram of pvalue



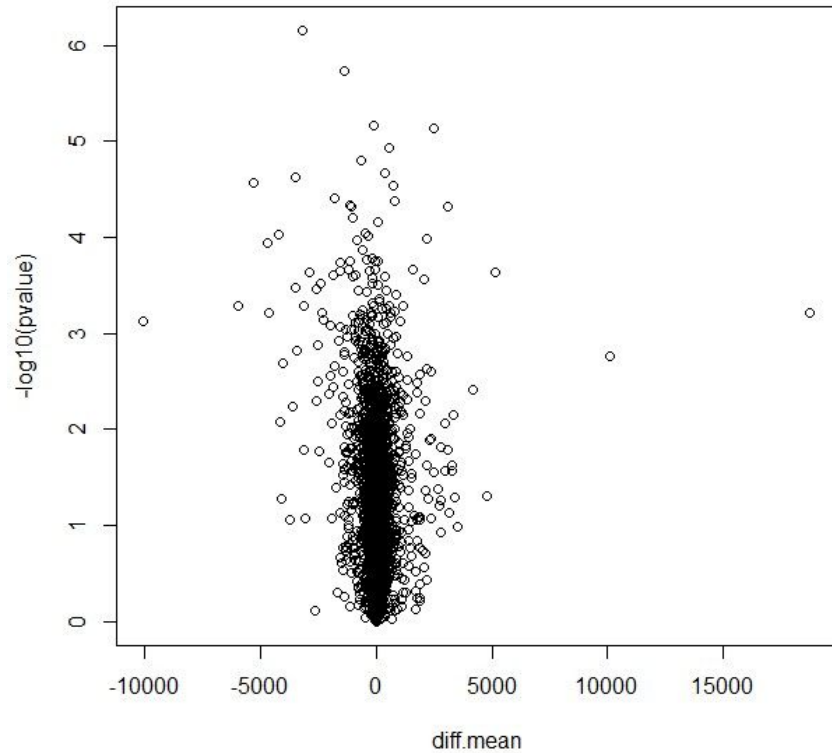
```
hist(pvalue)
```

Histogram of $-\log_{10}(\text{pvalue})$



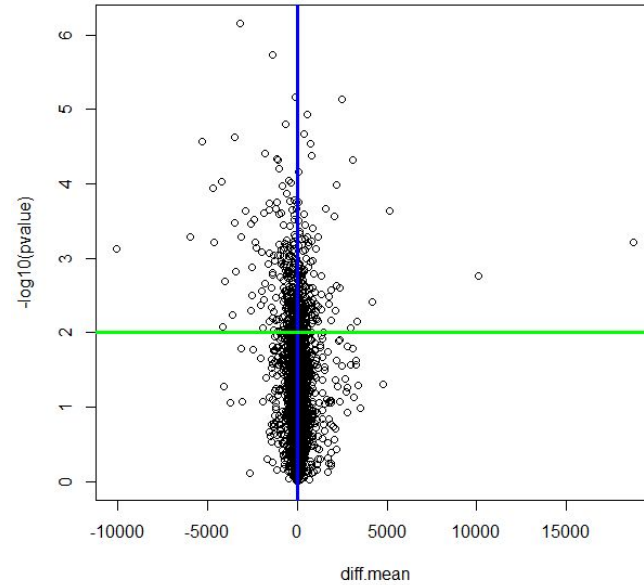
```
hist(-log10(pvalue), col="brown")
```

GSE5583 - Volcano



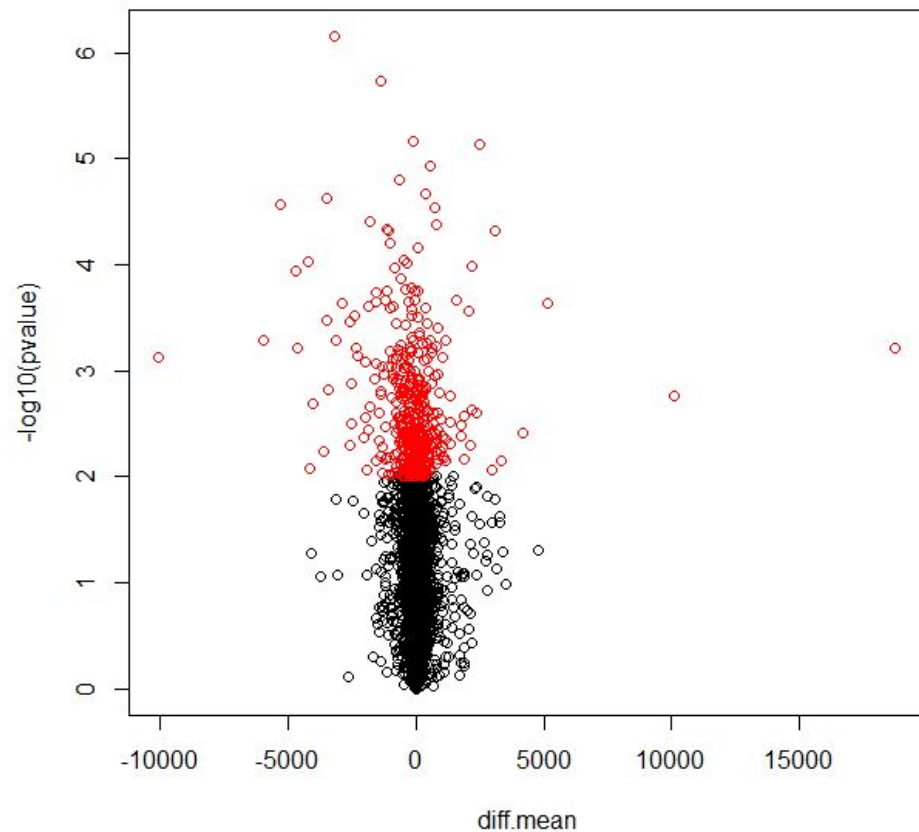
```
plot(diff.mean, -log10(pvalue), main = "GSE5583 - Volcano")
```

GSE5583 - Volcano



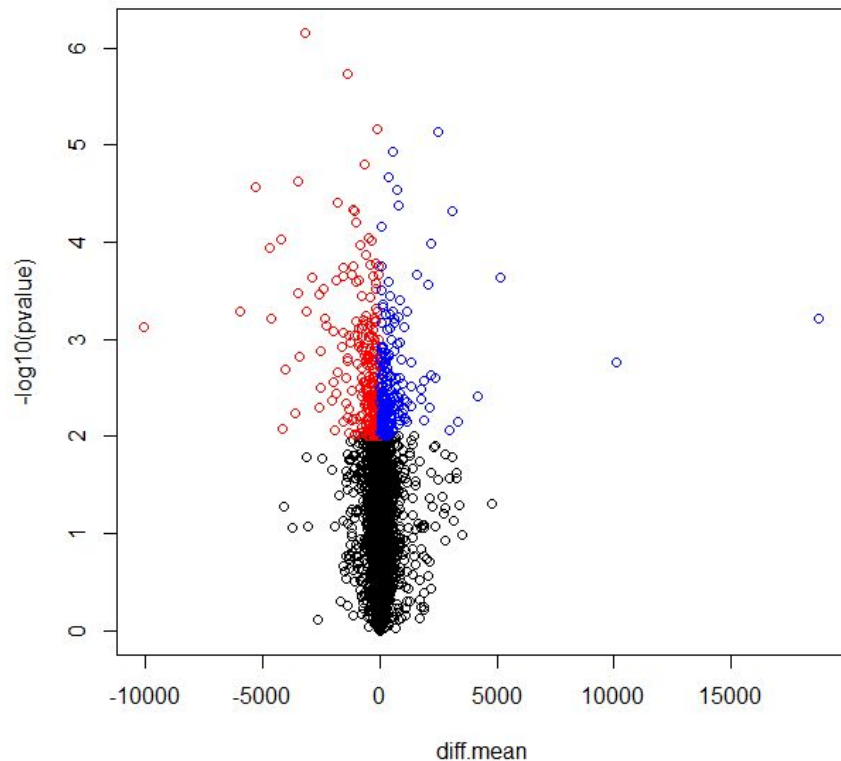
```
diff.mean_cutoff = 2
pvalue_cutoff = 0.01
abline(v = diff.mean_cutoff, col = "blue",
lwd = 3)
#abline(v = -diff.mean_cutoff, col = "red",
lwd = 3)
abline(h = -log10(pvalue_cutoff), col =
"green", lwd = 3)
```

GSE5583 - Volcano #2

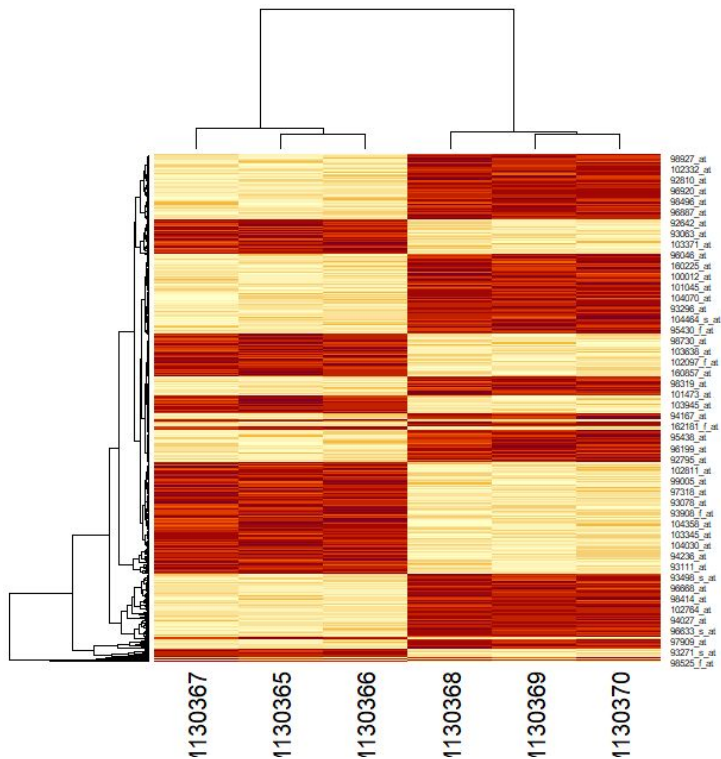


```
plot(diff.mean,  
      -log10(pvalue), main =  
      "GSE5583 - Volcano #2")  
points  
  (diff.mean[filter_combined],  
   -log10(pvalue[filter_combined])  
  ), col = "red")
```

GSE5583 - Volcano #3



```
plot(diff.mean, -log10(pvalue), main = "GSE5583 - Volcano #3")
points (diff.mean[filter_combined & diff.mean < 0],
        -log10(pvalue[filter_combined & diff.mean < 0]), col = "red")
points (diff.mean[filter_combined & diff.mean > 0],
        -log10(pvalue[filter_combined & diff.mean > 0]), col = "blue")
```



```
rowv = as.dendrogram(hclust(as.dist(1-cor(t(filtered)))))
colv = as.dendrogram(hclust(as.dist(1-cor(filtered))))
heatmap(filtered, Rowv=rowv, Colv=colv,
cexCol=0.7,labRow=FALSE)
```

```
heatmap(filtered)
```

