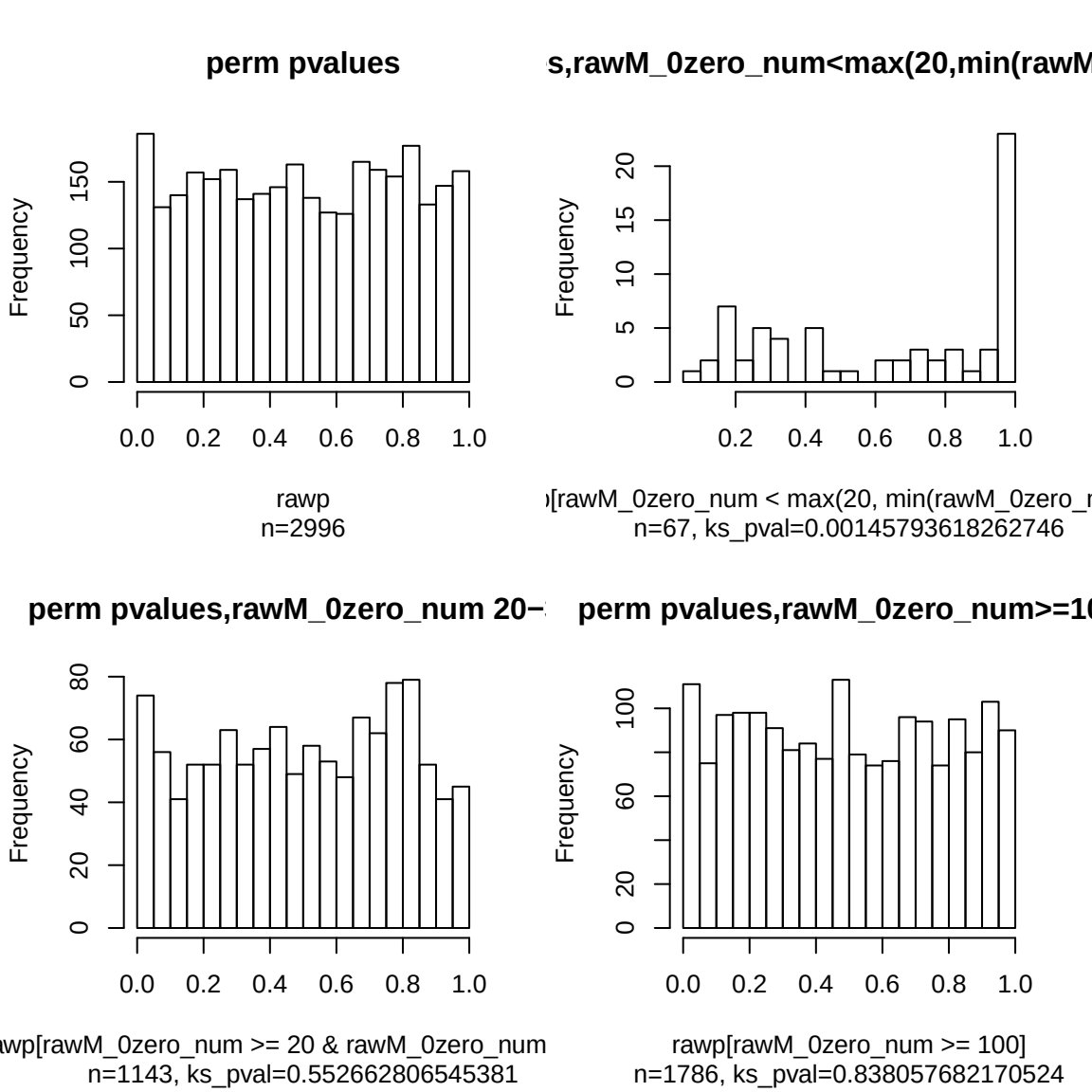
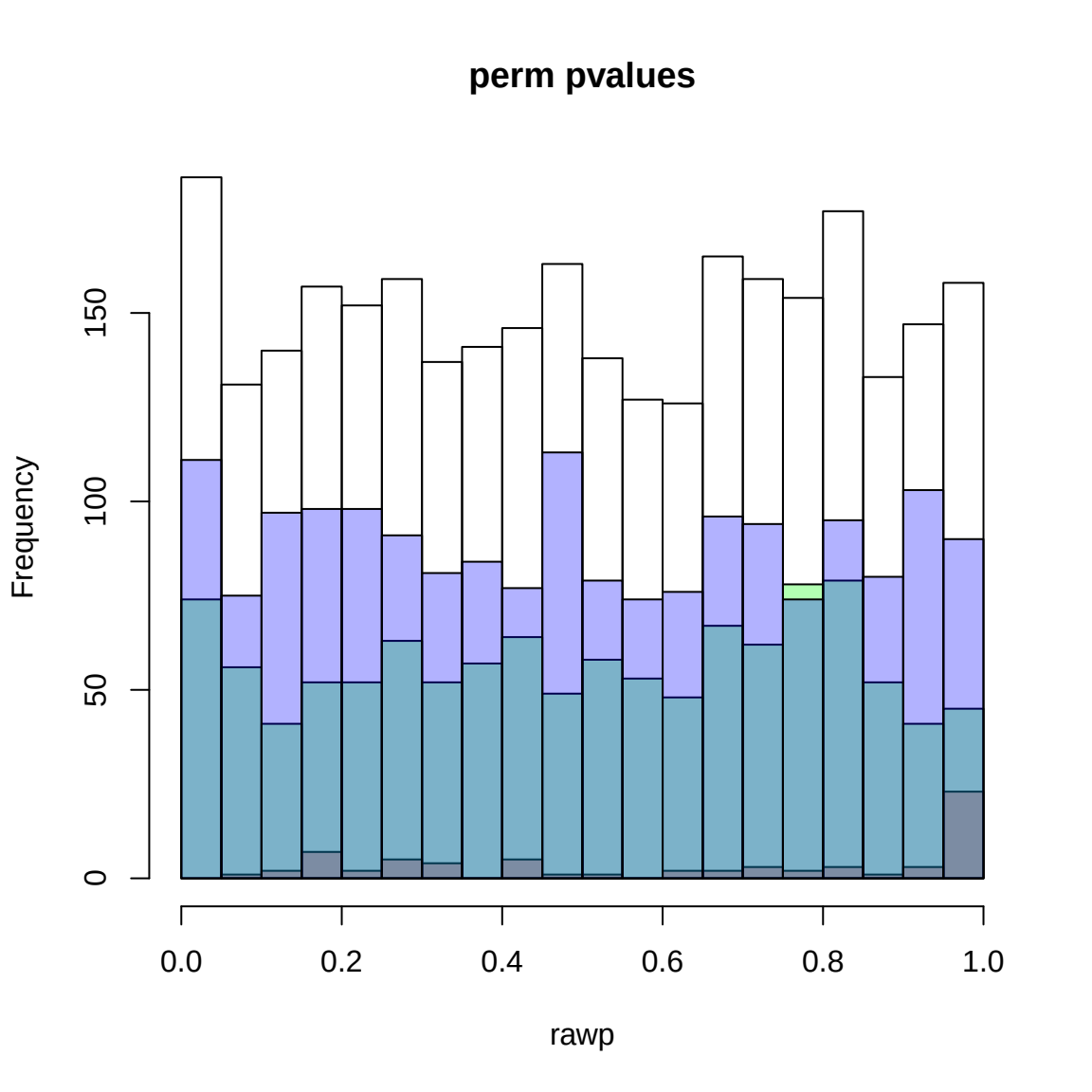
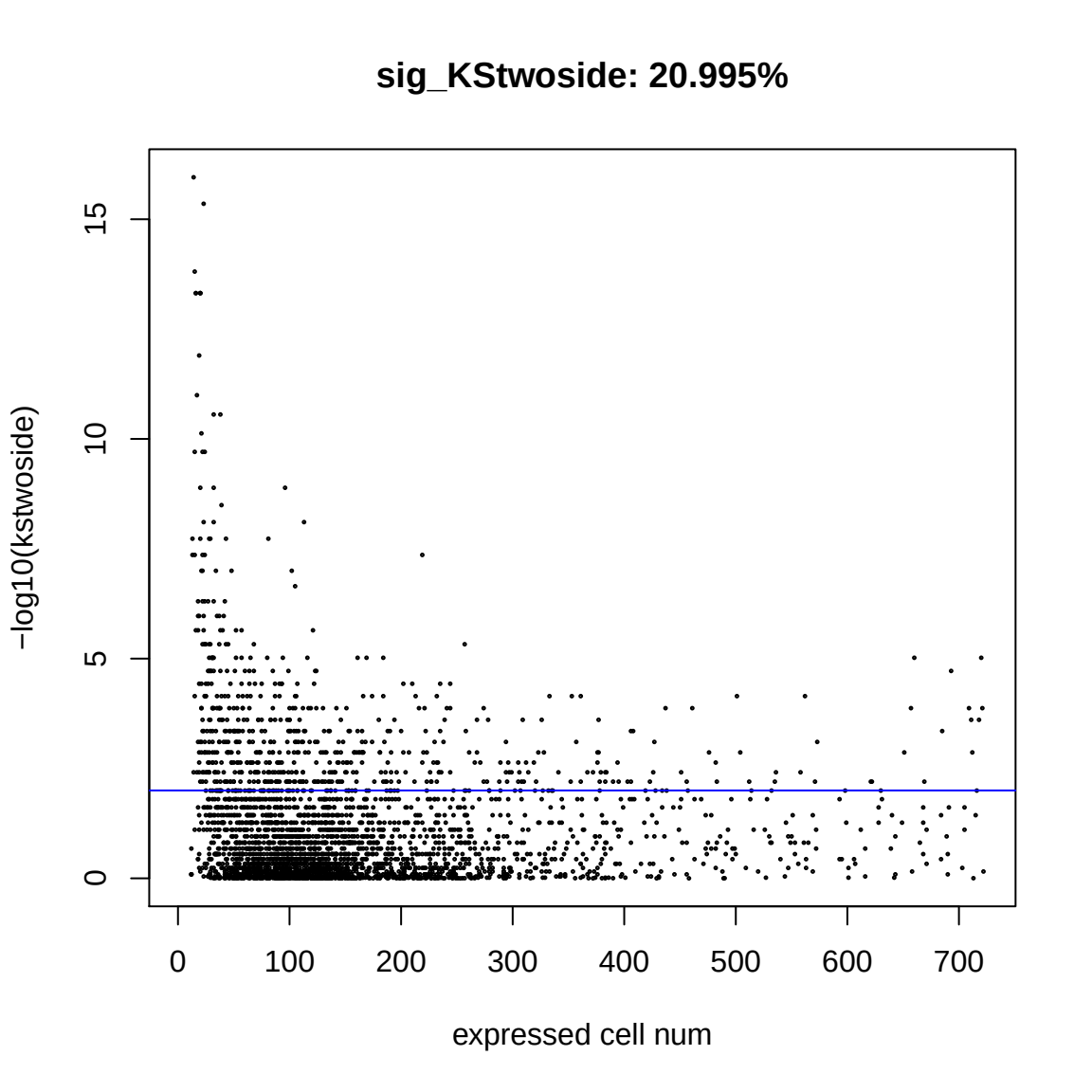
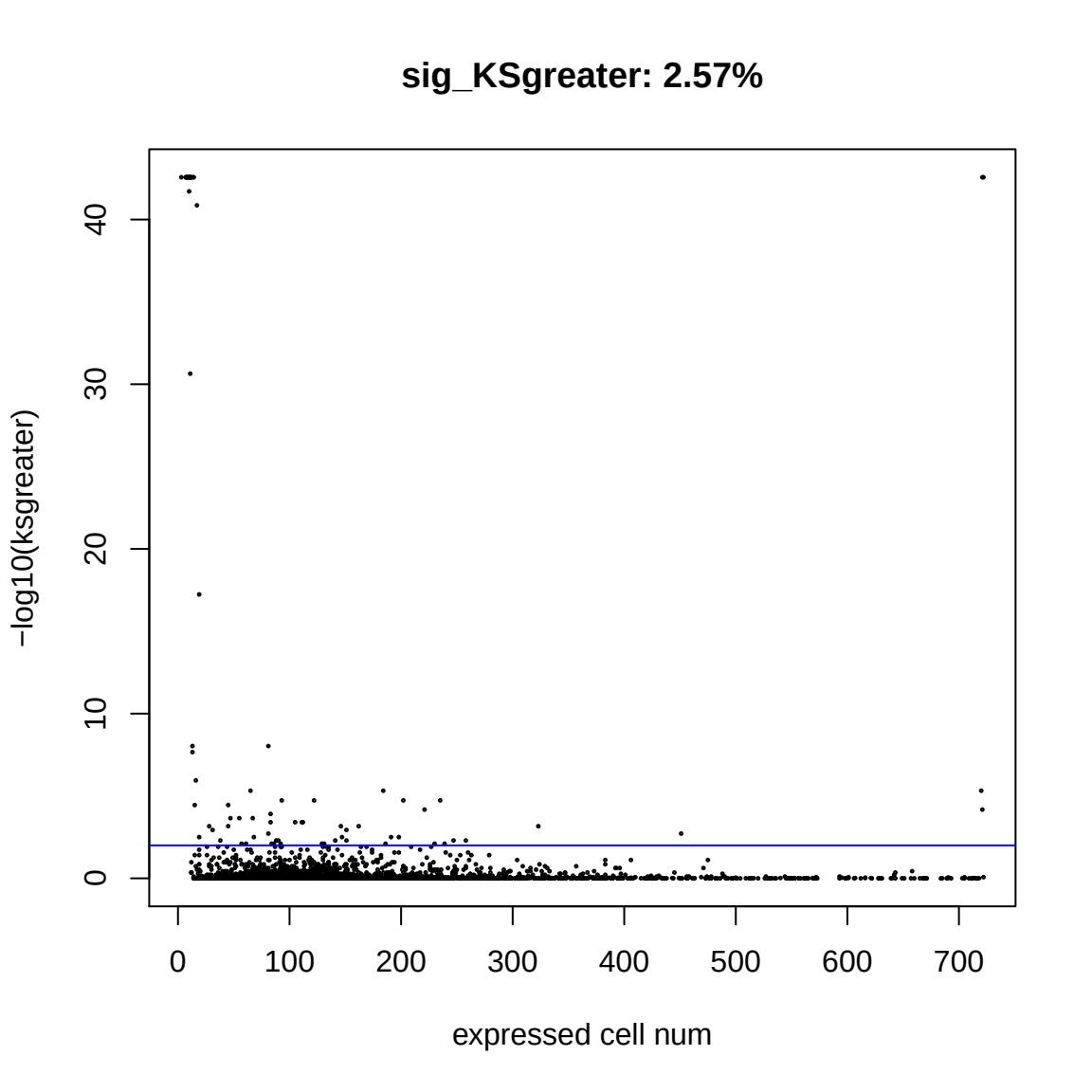
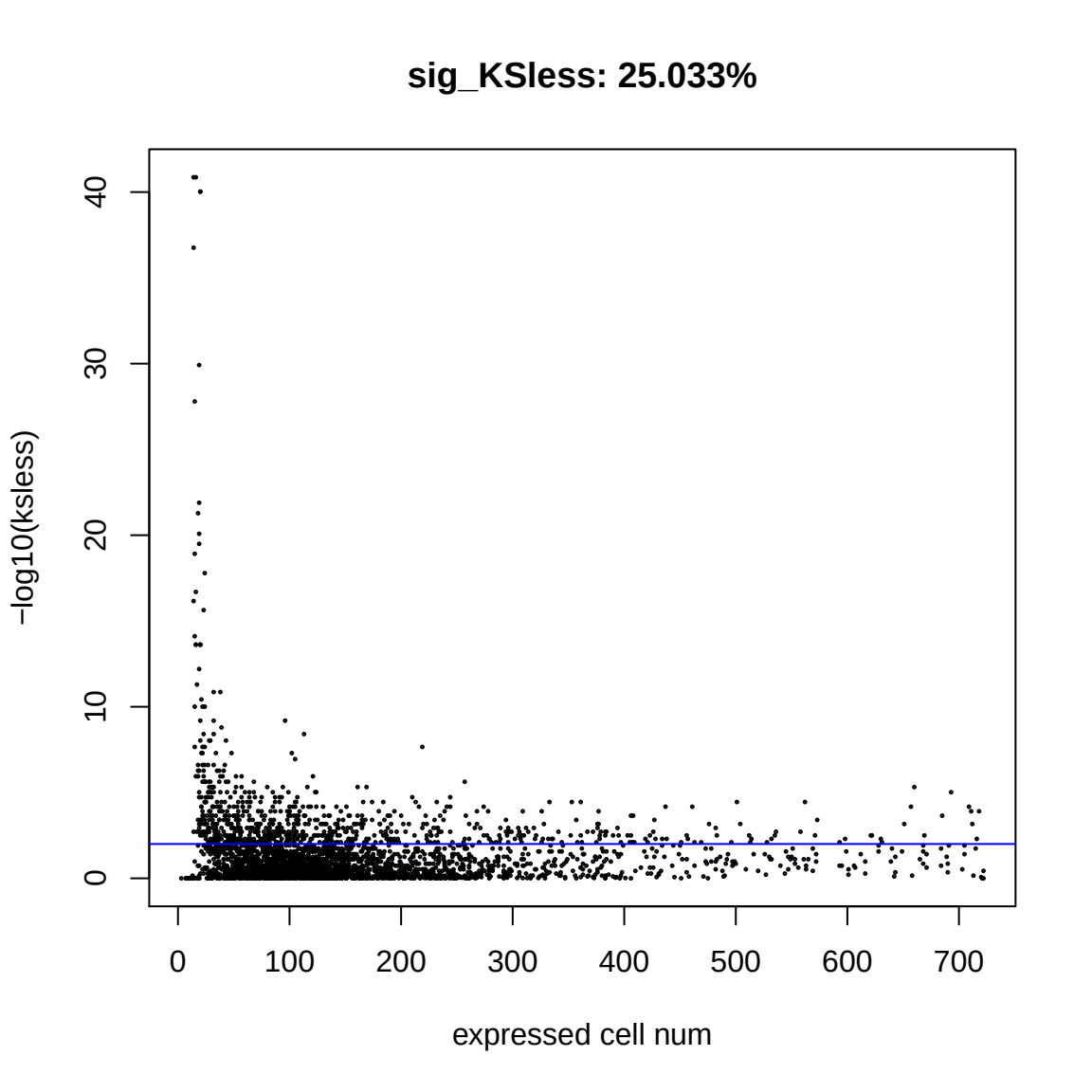
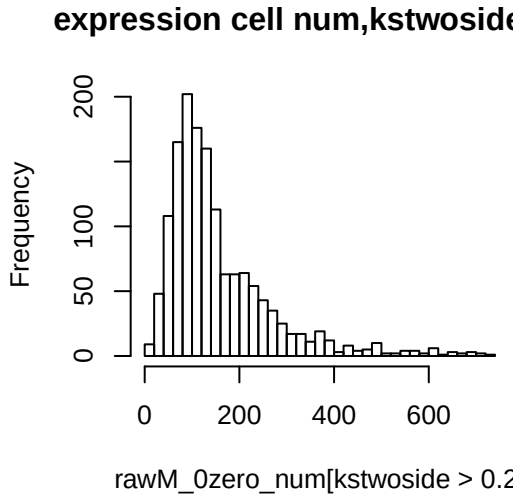

perm pvalues
Frequency
0
50
100
150
0.0
0.2
0.4
0.6
0.8
1.0
rawp
n=2996
s,rawM_0zero_num<max(20,min(rawM
Frequency
0
5
10
15
20
0.2
0.4
0.6
0.8
1.0
[rawM_0zero_num < max(20, min(rawM_0zero_
n=67, ks_pval=0.00145793618262746
perm pvalues,rawM_0zero_num 20−
Frequency
0
20
40
60
80
0.0
0.2
0.4
0.6
0.8
1.0
awp[rawM_0zero_num >= 20 & rawM_0zero_num
n=1143, ks_pval=0.552662806545381
perm pvalues,rawM_0zero_num>=10
Frequency
0
20
60
100
0.0
0.2
0.4
0.6
0.8
1.0
rawp[rawM_0zero_num >= 100]
n=1786, ks_pval=0.838057682170524

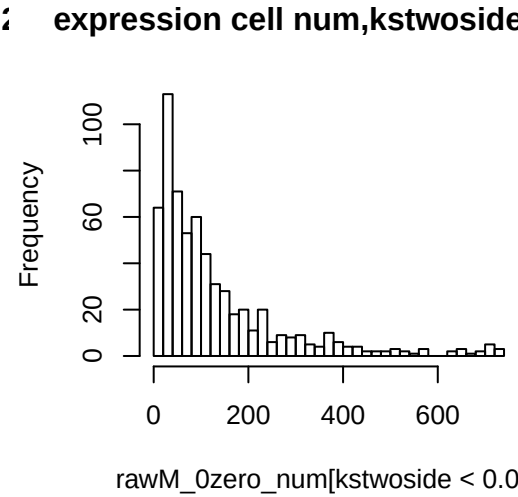

perm pvalues
Frequency
0
50
100
150
0.0
0.2
0.4
0.6
0.8
1.0
rawp

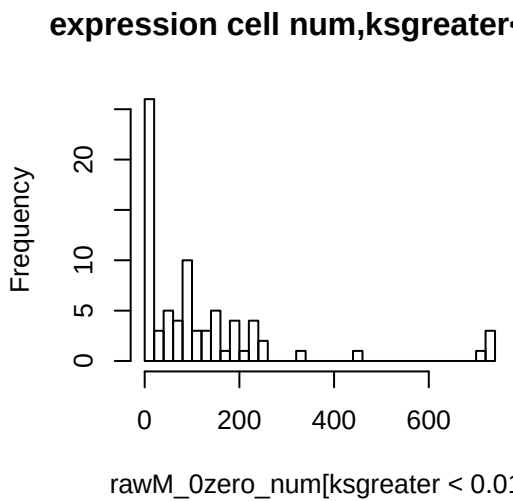

sig_KStwoside: 20.995%
−log10(kstwoside)
0
5
10
15
0
100
200
300
400
500
600
700
expressed cell num

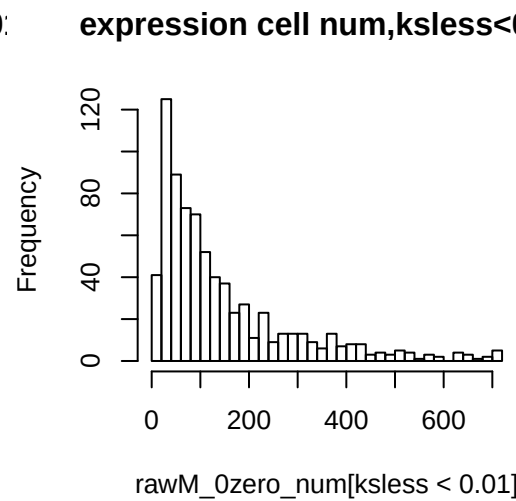

sig_KSgreater: 2.57%
−log10(ksgreater)
0
10
20
30
40
0
100
200
300
400
500
600
700
expressed cell num

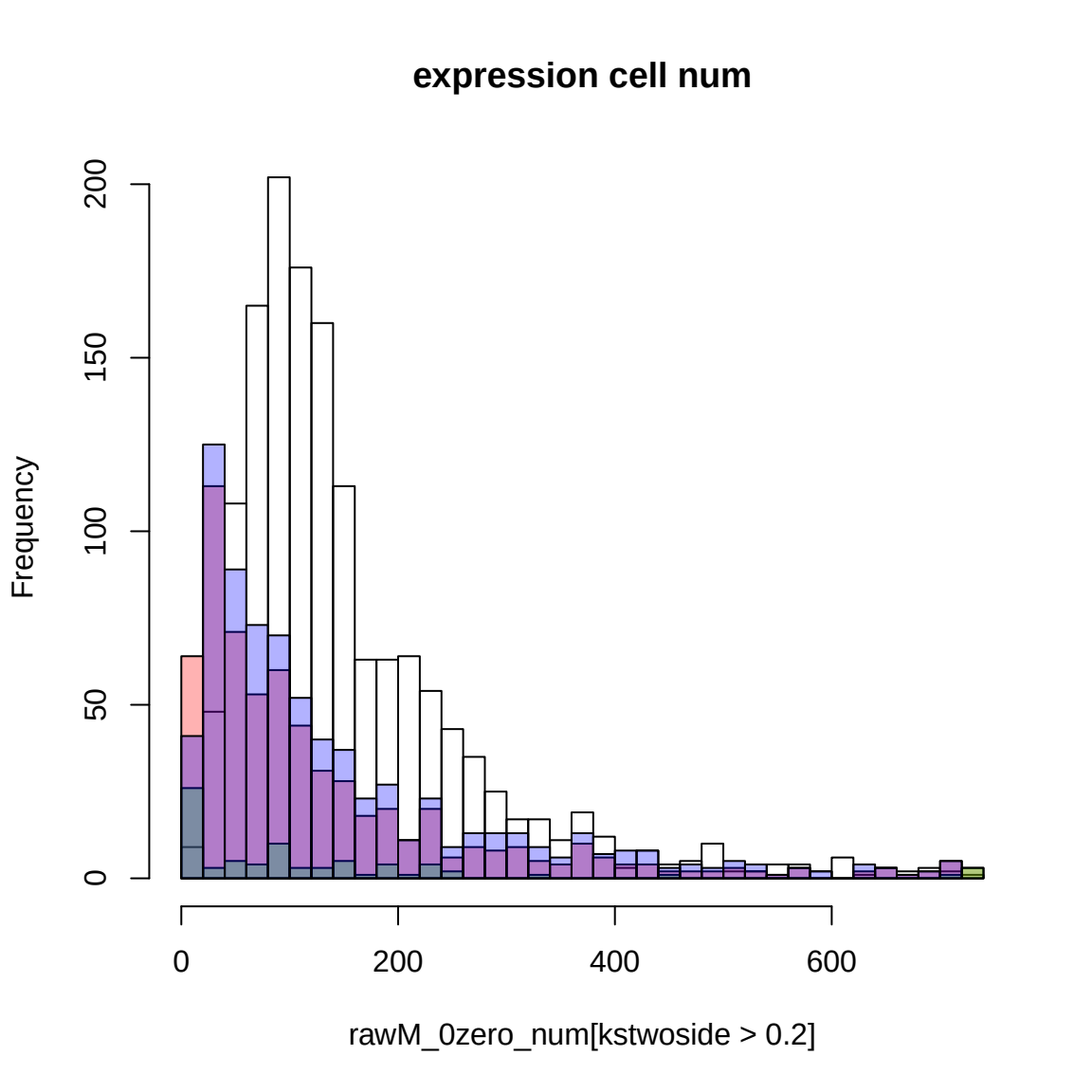

sig_KSless: 25.033%
−log10(ksless)
0
10
20
30
40
0
100
200
300
400
500
600
700
expressed cell num

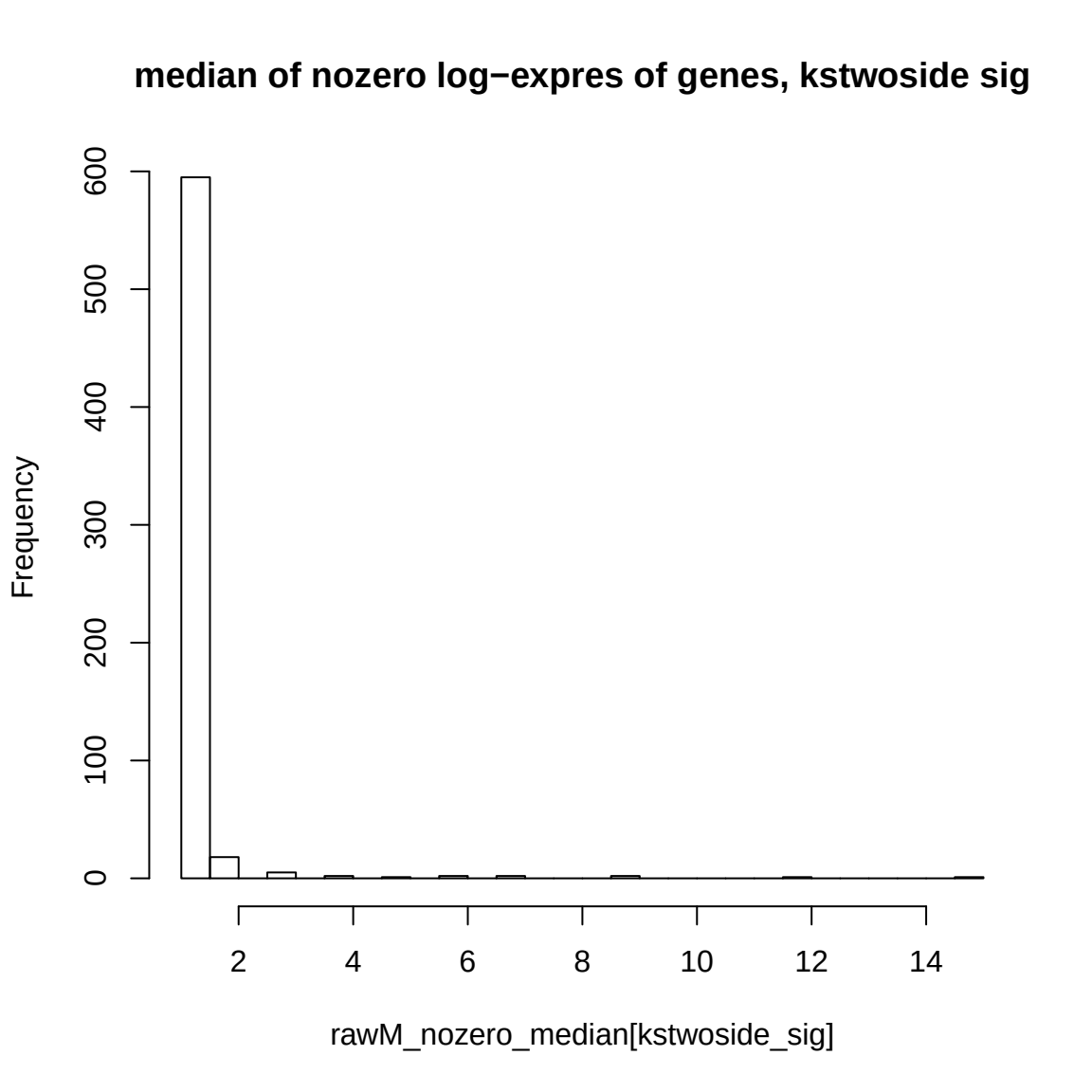

expression cell num,kstwoside>0.2
Frequency
0
50
100
200
0
200
400
600
rawM_0zero_num[kstwoside > 0.2]

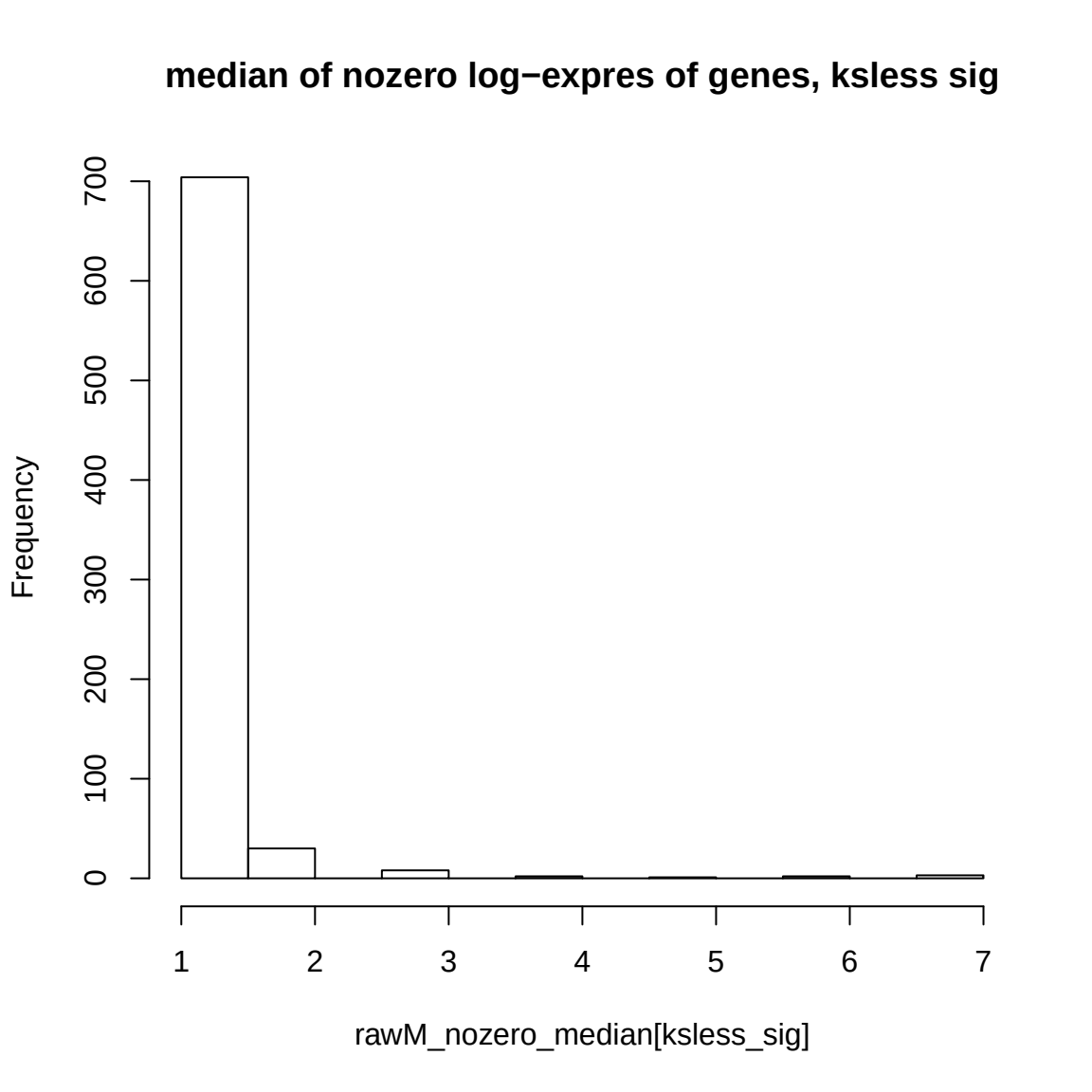

expression cell num,kstwoside<0.0
Frequency
0
20
60
100
0
200
400
600
rawM_0zero_num[kstwoside < 0.01]

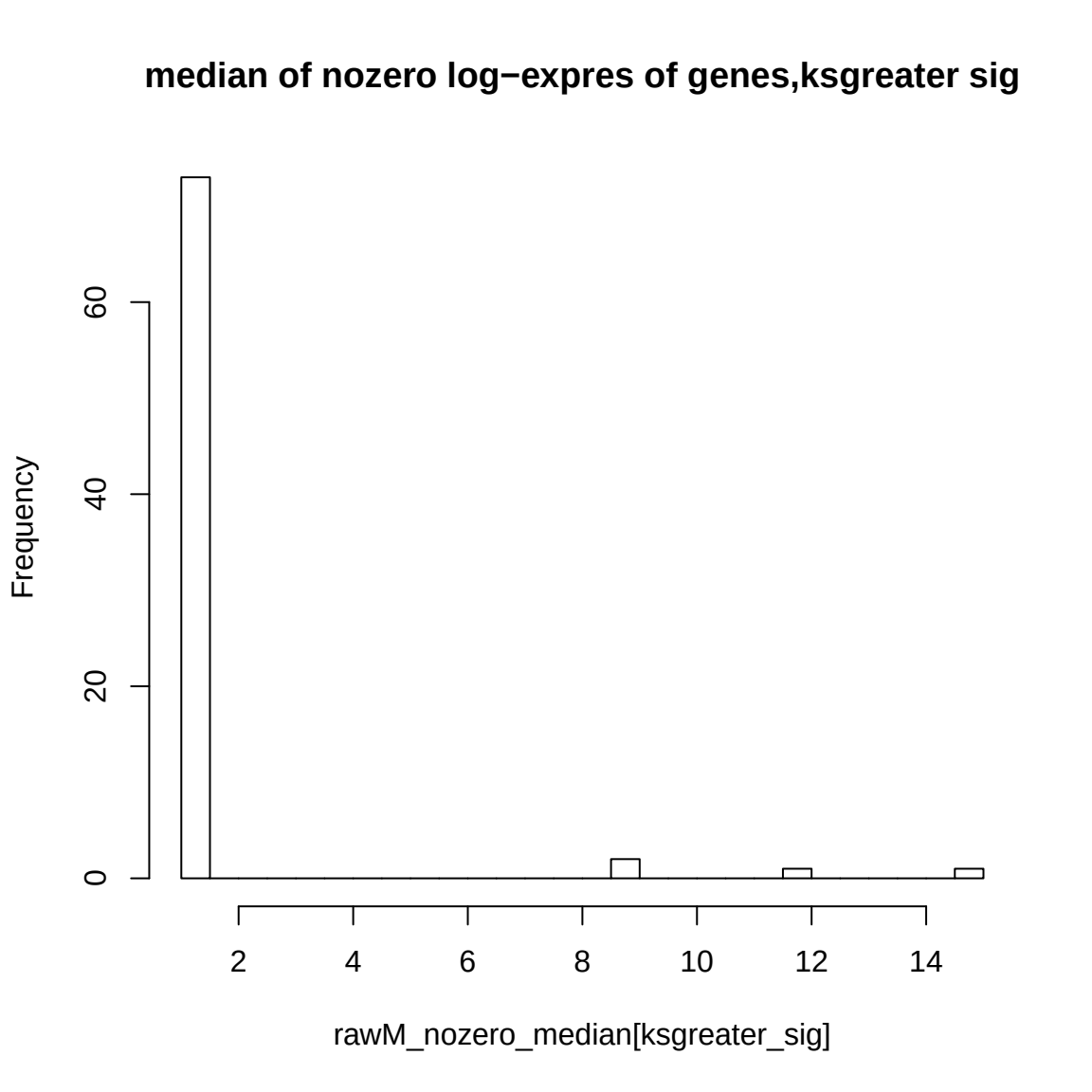

expression cell num,ksgreater<0.0
Frequency
0
5
10
20
0
200
400
600
rawM_0zero_num[ksgreater < 0.01]

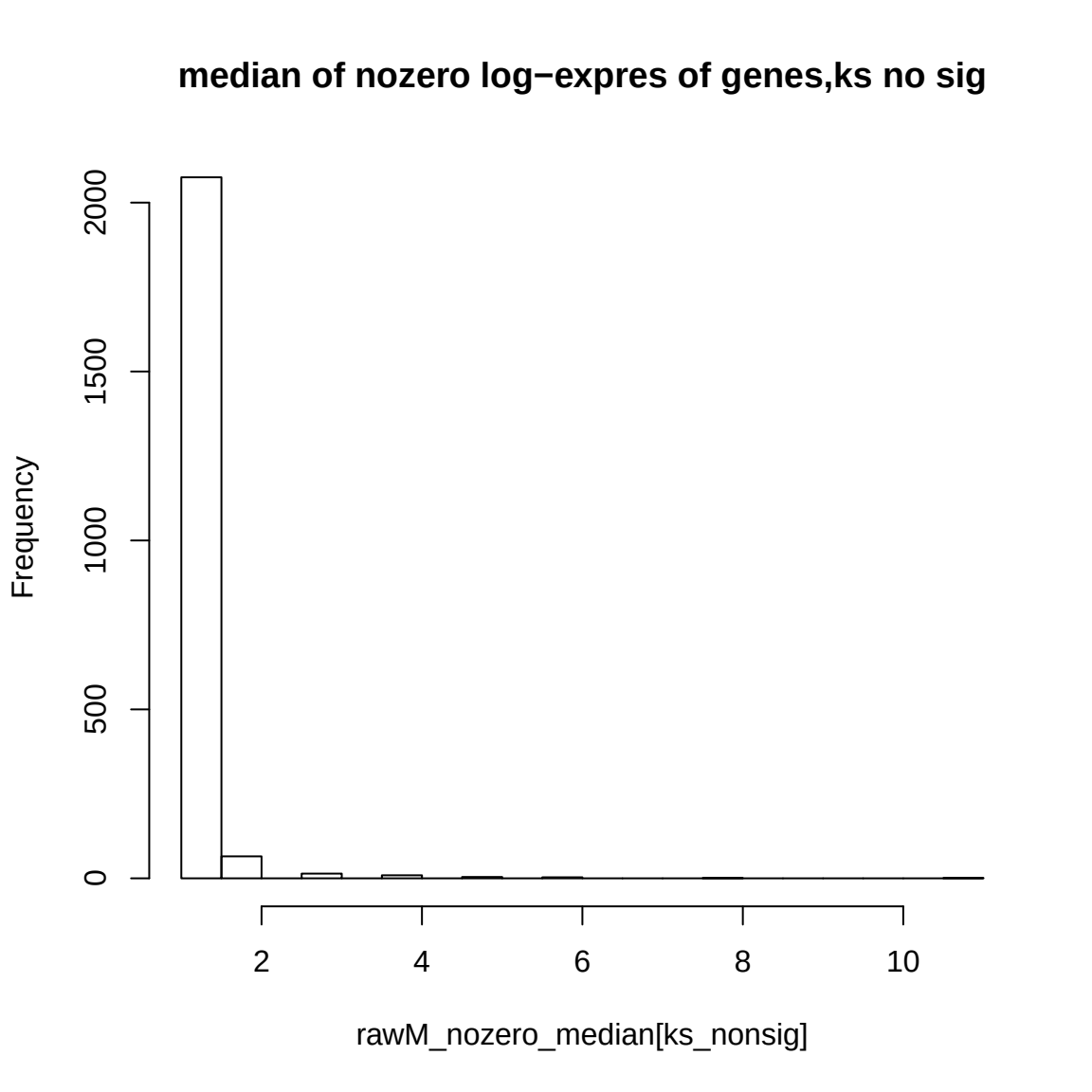

expression cell num,ksless<0.01
Frequency
0
40
80
120
0
200
400
600
rawM_0zero_num[ksless < 0.01]

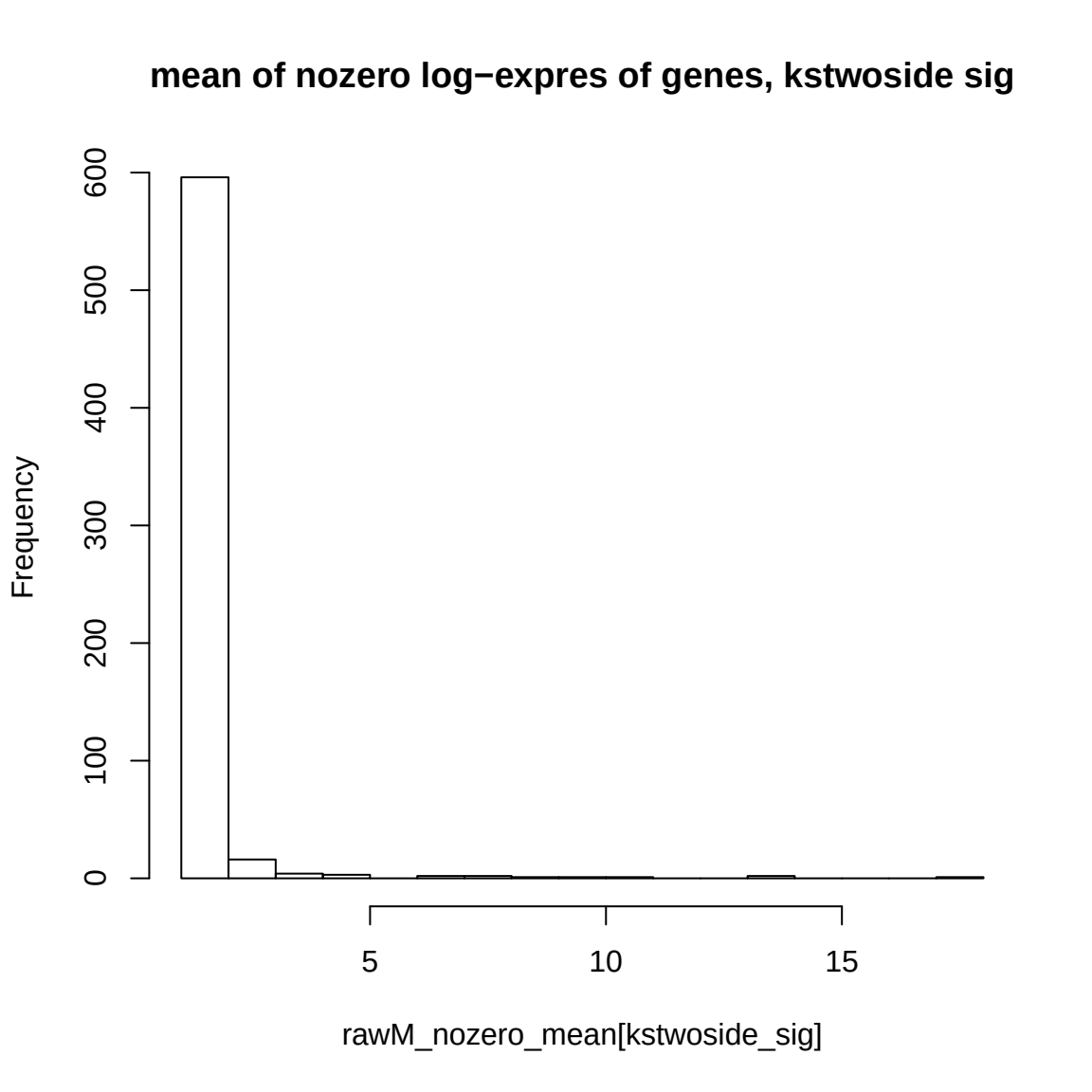

expression cell num
Frequency
0
50
100
150
200
0
200
400
600
rawM_0zero_num[kstwoside > 0.2]

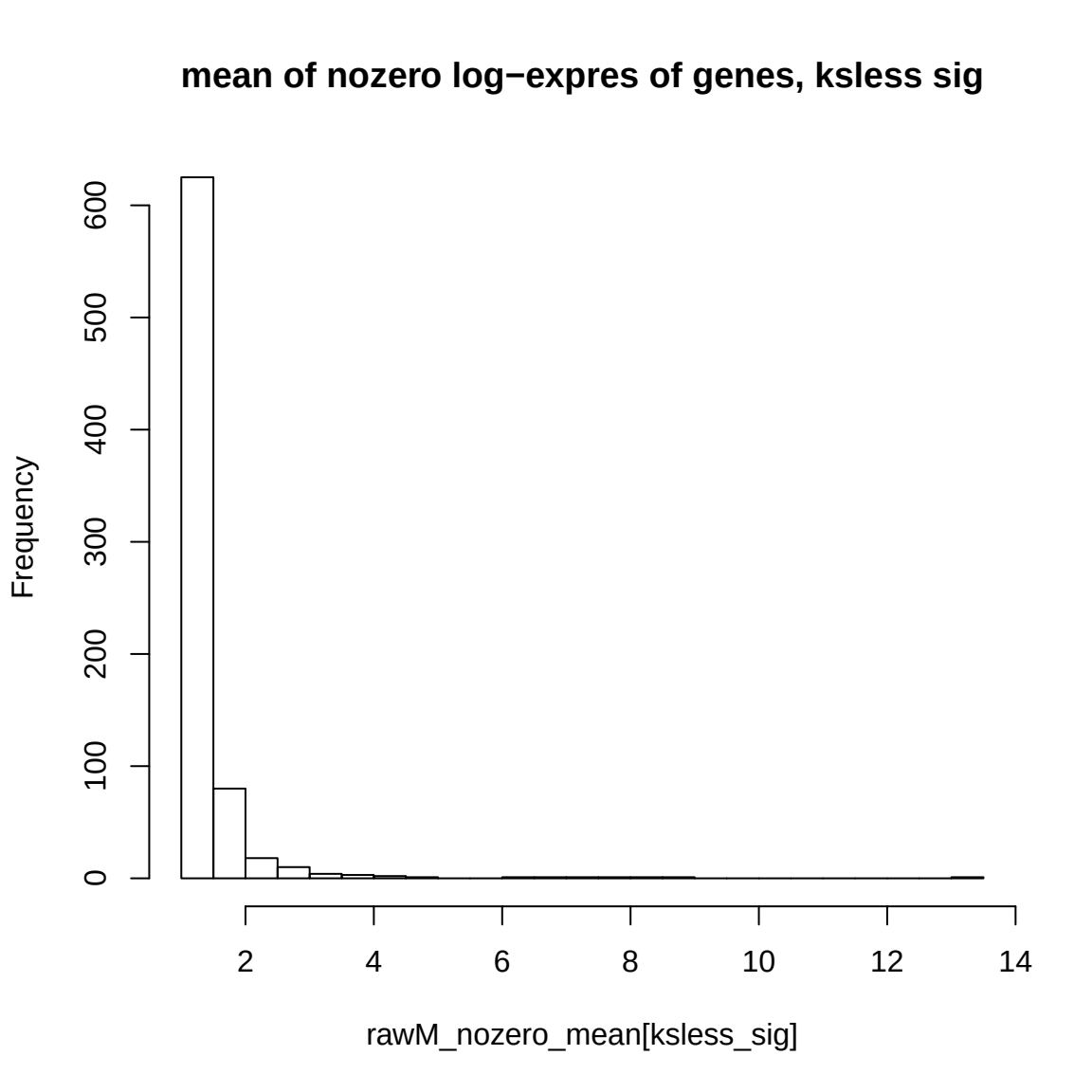

median of nozero log−expres of genes, kstwoside sig
Frequency
0
100
200
300
400
500
600
2
4
6
8
10
12
14
rawM_nozero_median[kstwoside_sig]


median of nozero log−expres of genes, ksless sig
Frequency
0
100
200
300
400
500
600
700
1
2
3
4
5
6
7
rawM_nozero_median[ksless_sig]

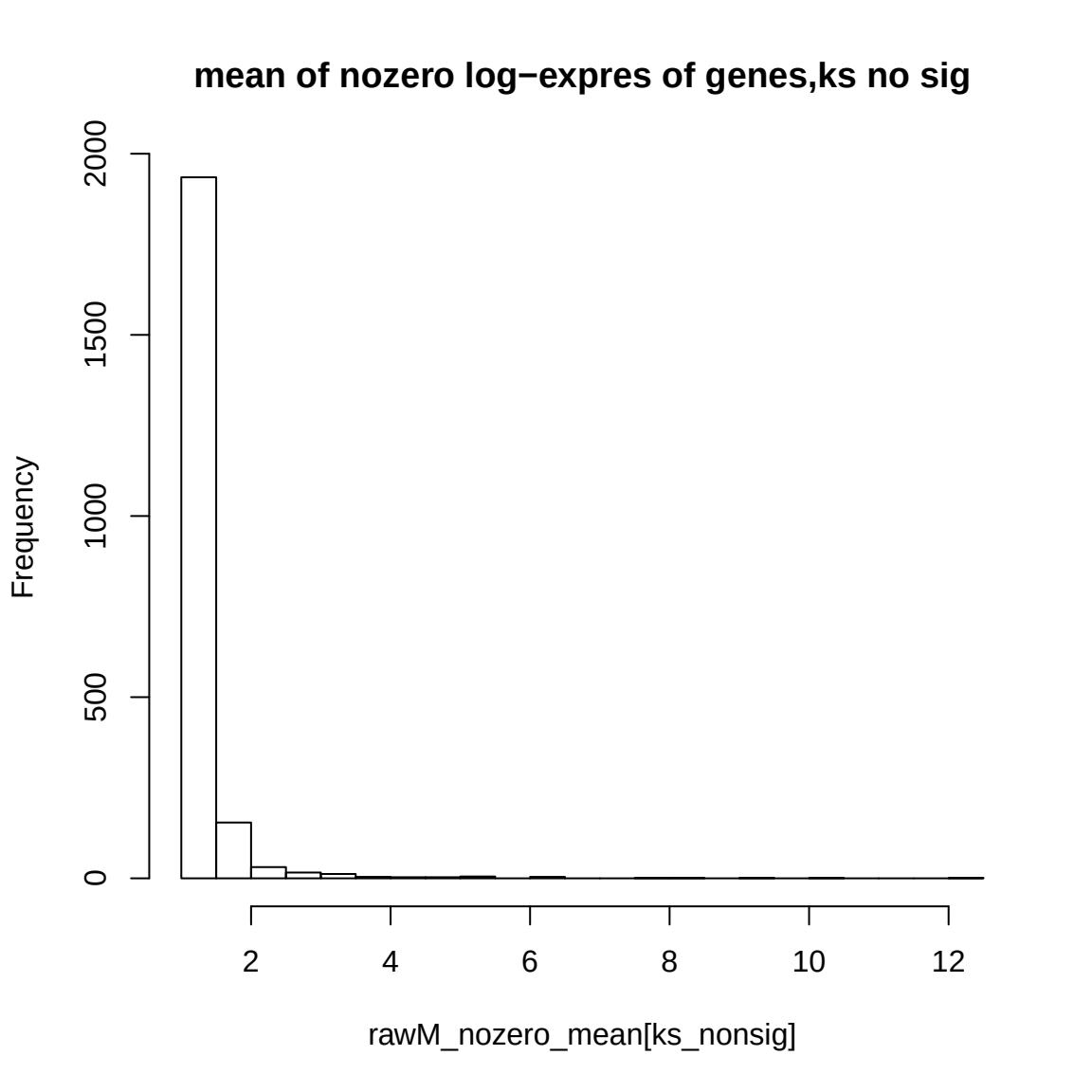

median of nozero log−expres of genes,ksgreater sig
Frequency
0
20
40
60
2
4
6
8
10
12
14
rawM_nozero_median[ksgreater_sig]

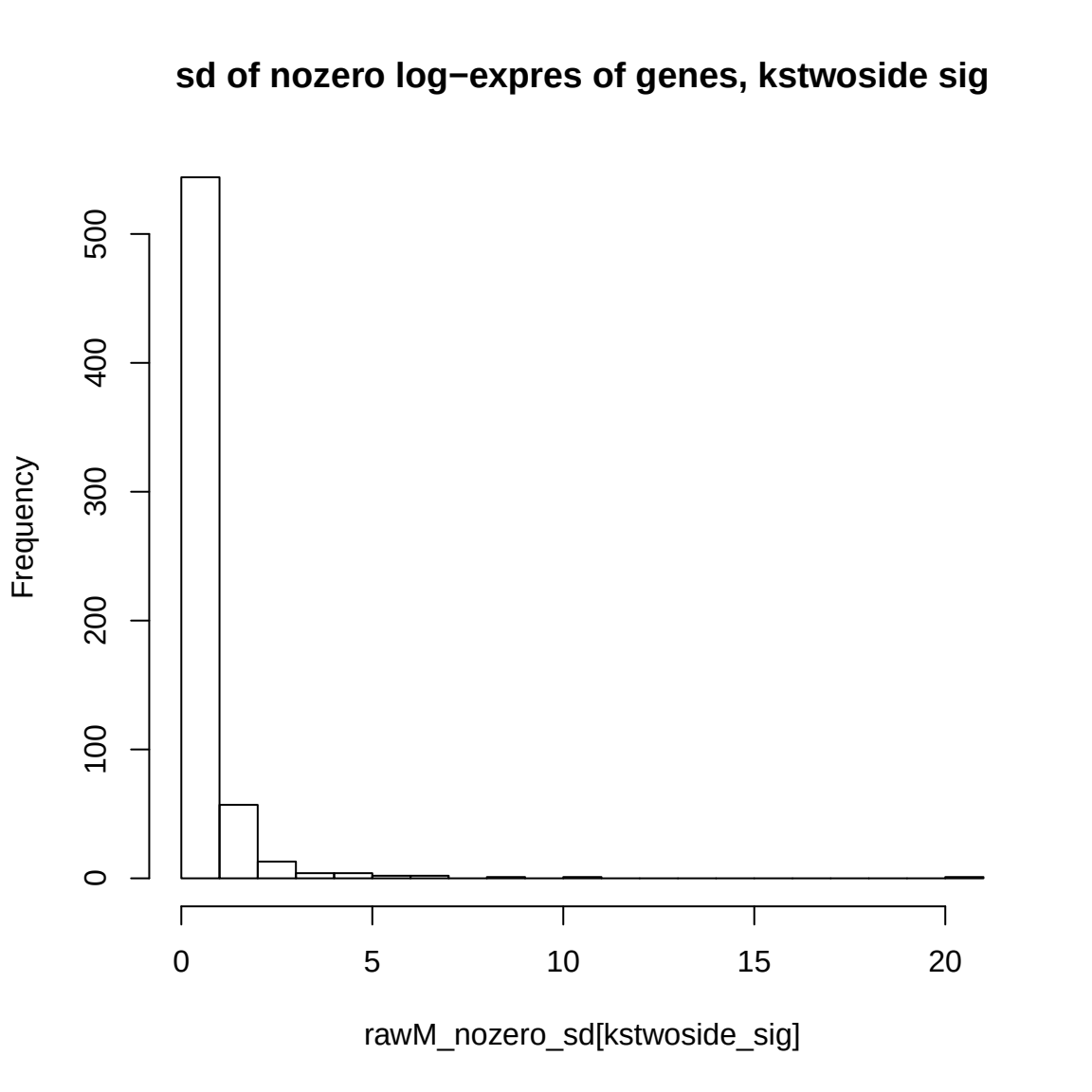

median of nozero log−expres of genes,ks no sig
Frequency
0
500
1000
1500
2000
2
4
6
8
10
rawM_nozero_median[ks_nonsig]

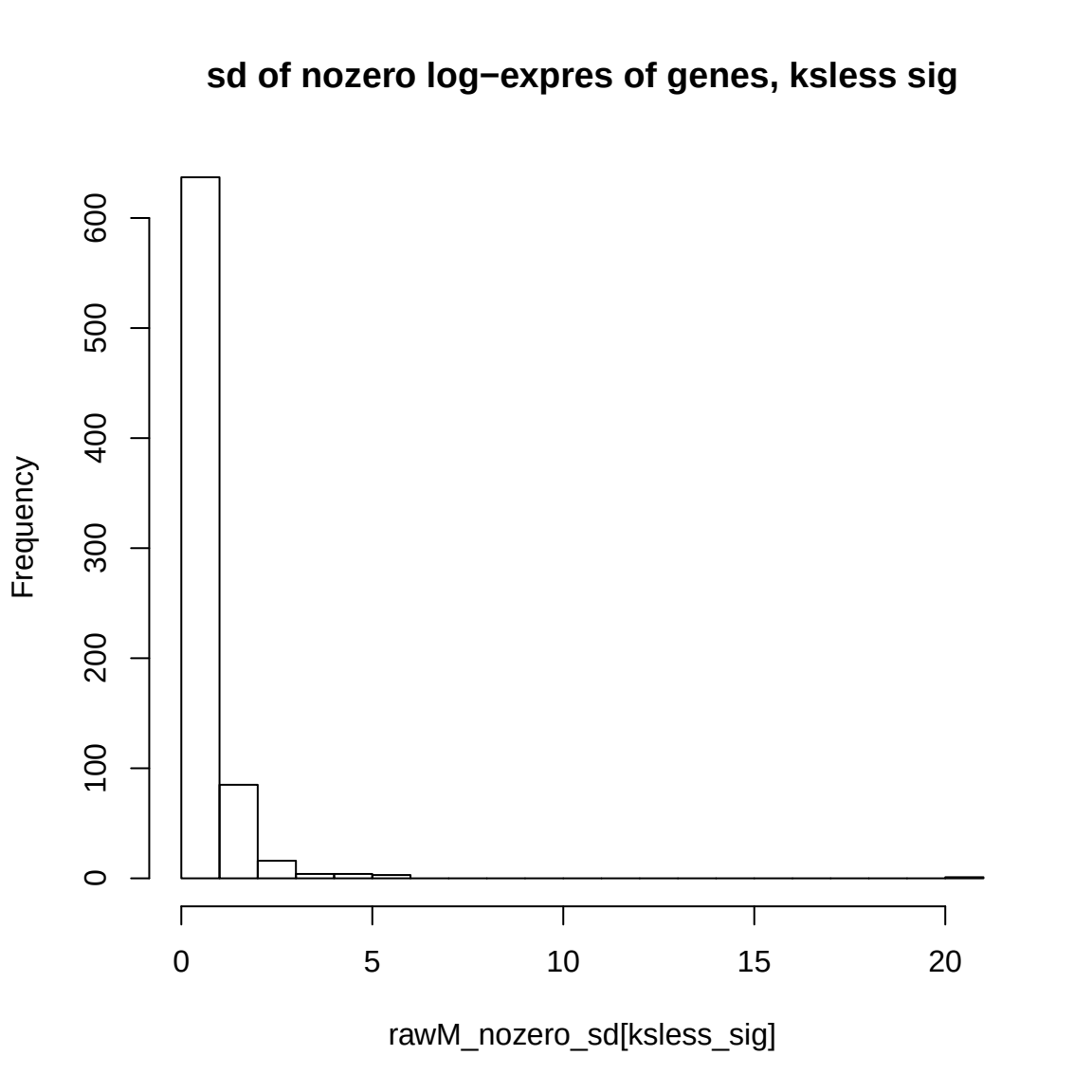

mean of nozero log−expres of genes, kstwoside sig
Frequency
0
100
200
300
400
500
600
5
10
15
rawM_nozero_mean[kstwoside_sig]

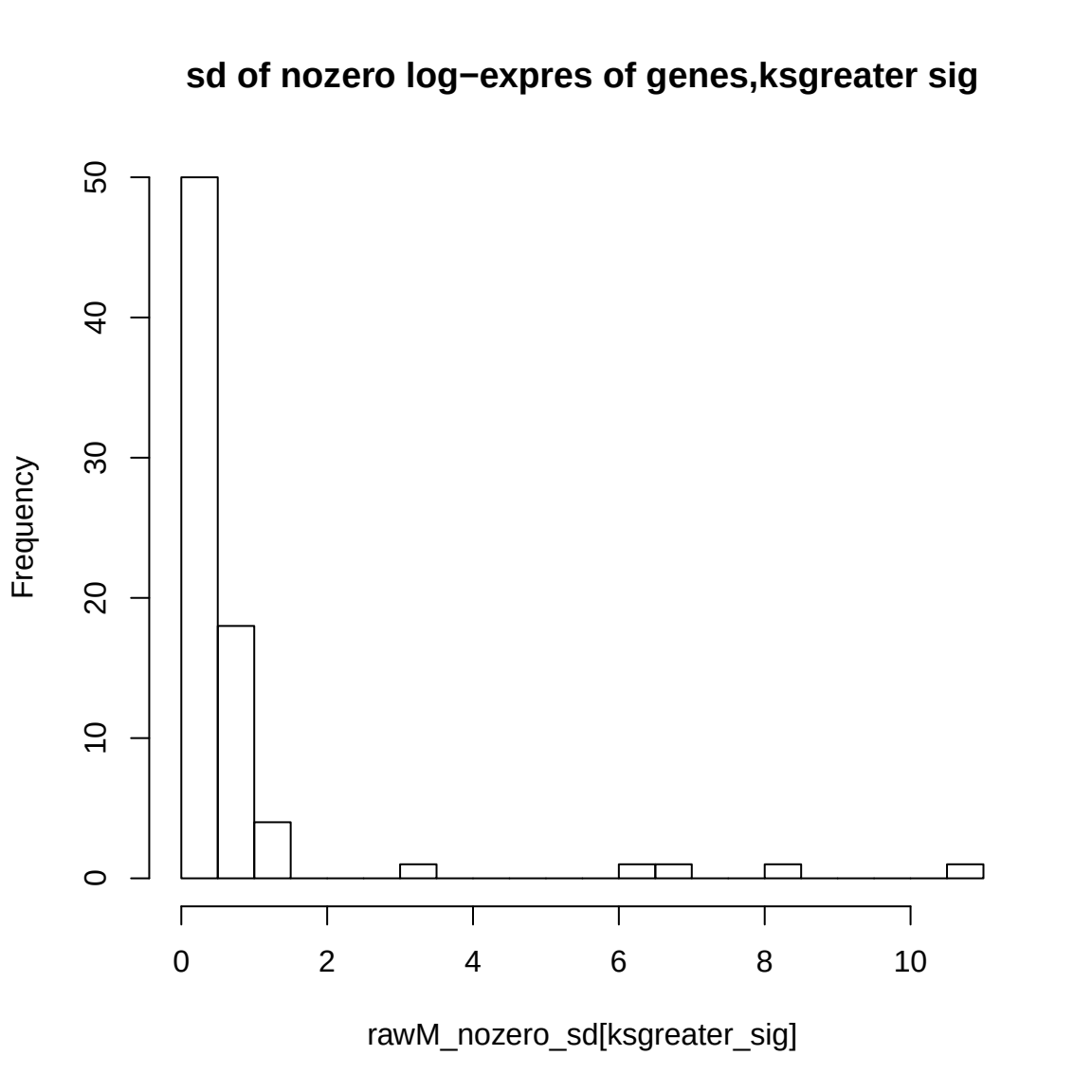

mean of nozero log−expres of genes, ksless sig
Frequency
0
100
200
300
400
500
600
2
4
6
8
10
12
14
rawM_nozero_mean[ksless_sig]

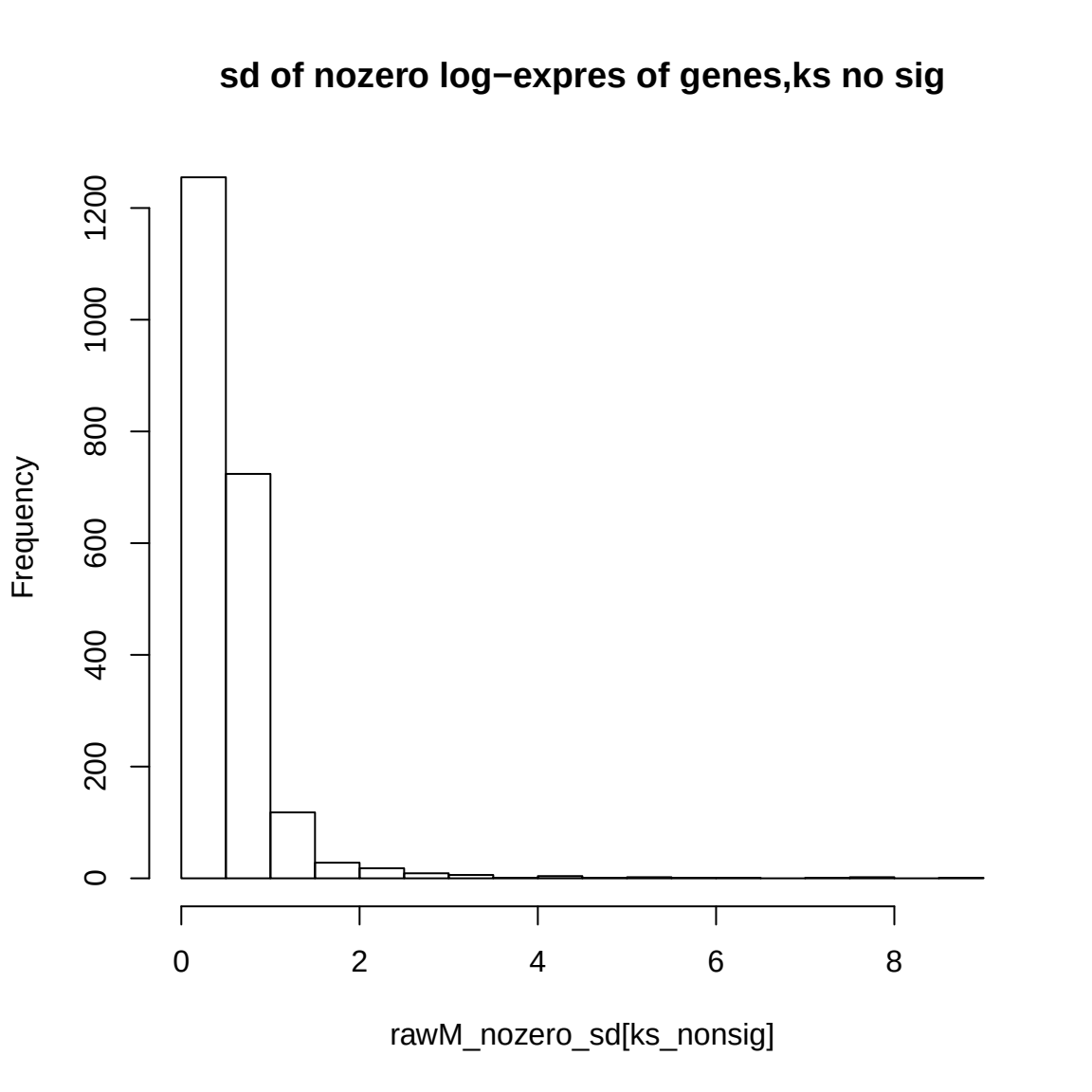

mean of nozero log−expres of genes,ksgreater sig
Frequency
0
20
40
60
5
10
15
rawM_nozero_mean[ksgreater_sig]

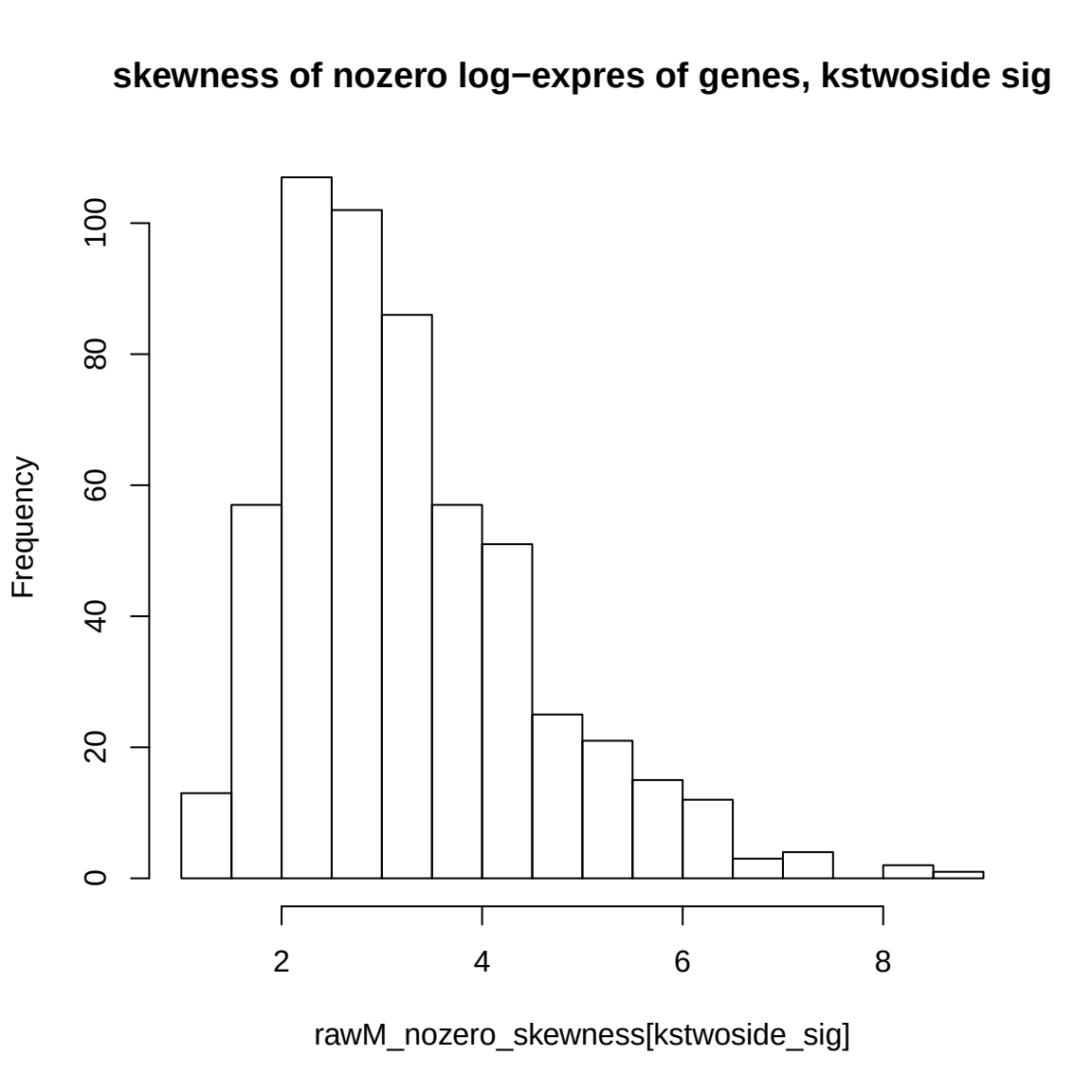

mean of nozero log−expres of genes,ks no sig
Frequency
0
500
1000
1500
2000
2
4
6
8
10
12
rawM_nozero_mean[ks_nonsig]

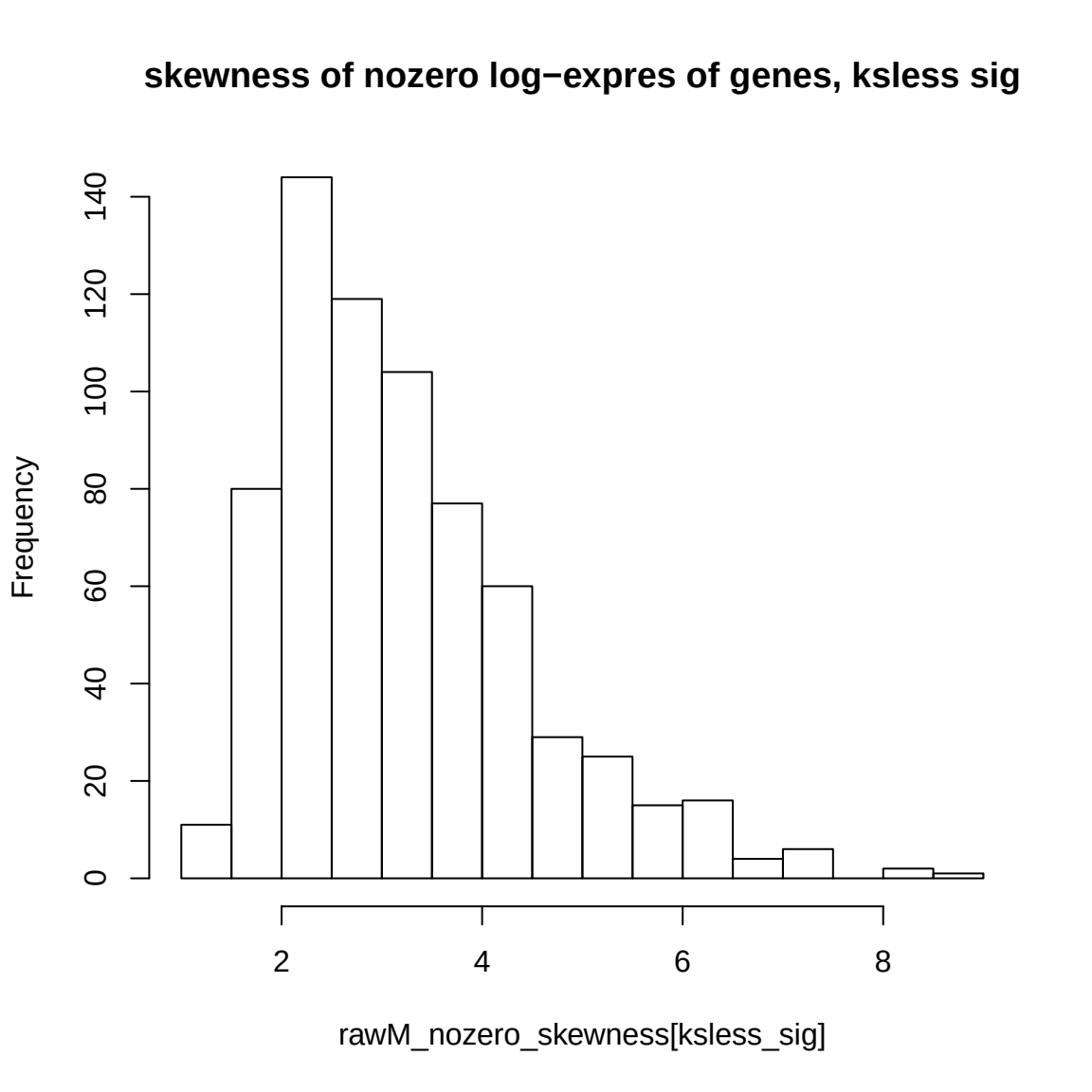

sd of nozero log−expres of genes, kstwoside sig
Frequency
0
100
200
300
400
500
0
5
10
15
20
rawM_nozero_sd[kstwoside_sig]

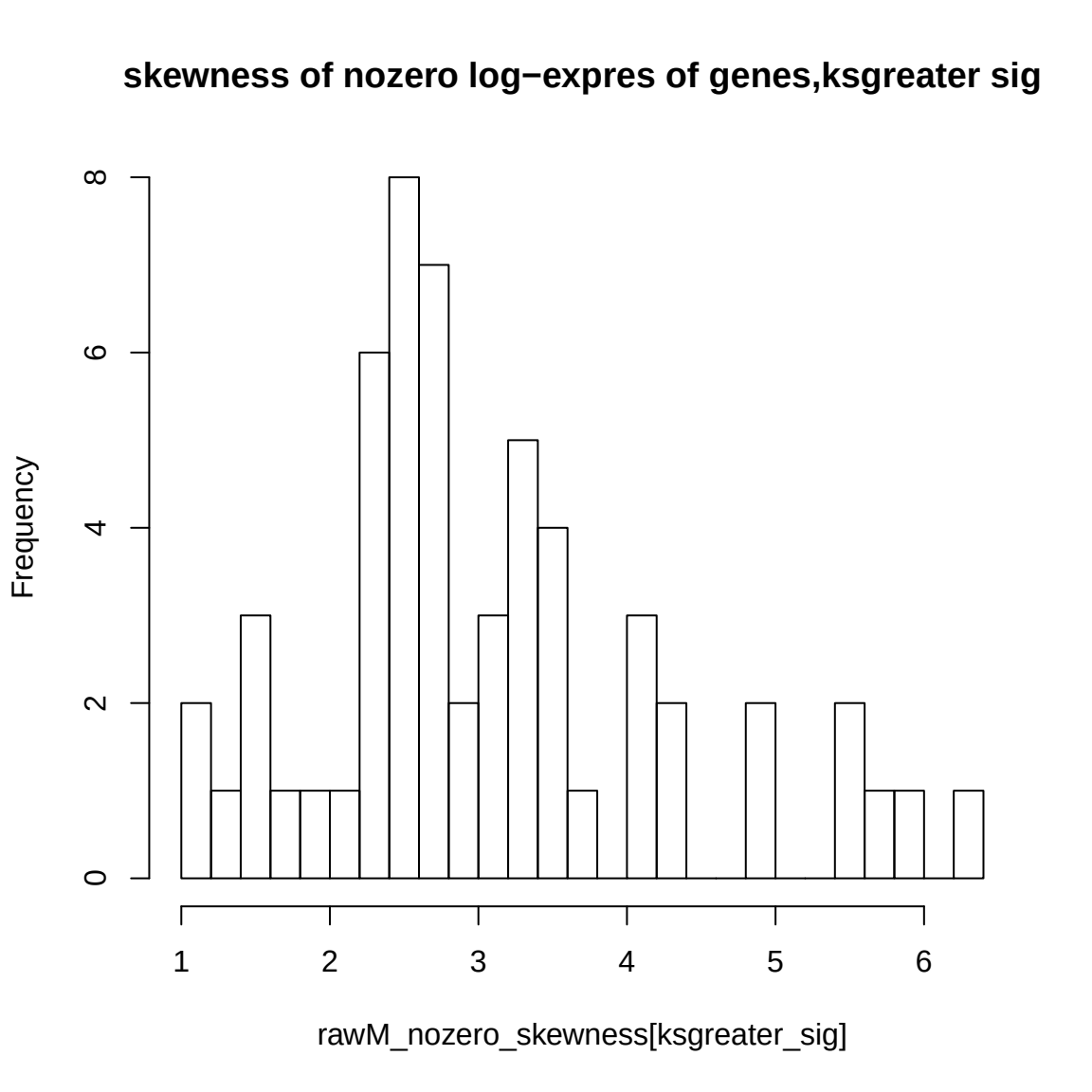

sd of nozero log−expres of genes, ksless sig
Frequency
0
100
200
300
400
500
600
0
5
10
15
20
rawM_nozero_sd[ksless_sig]

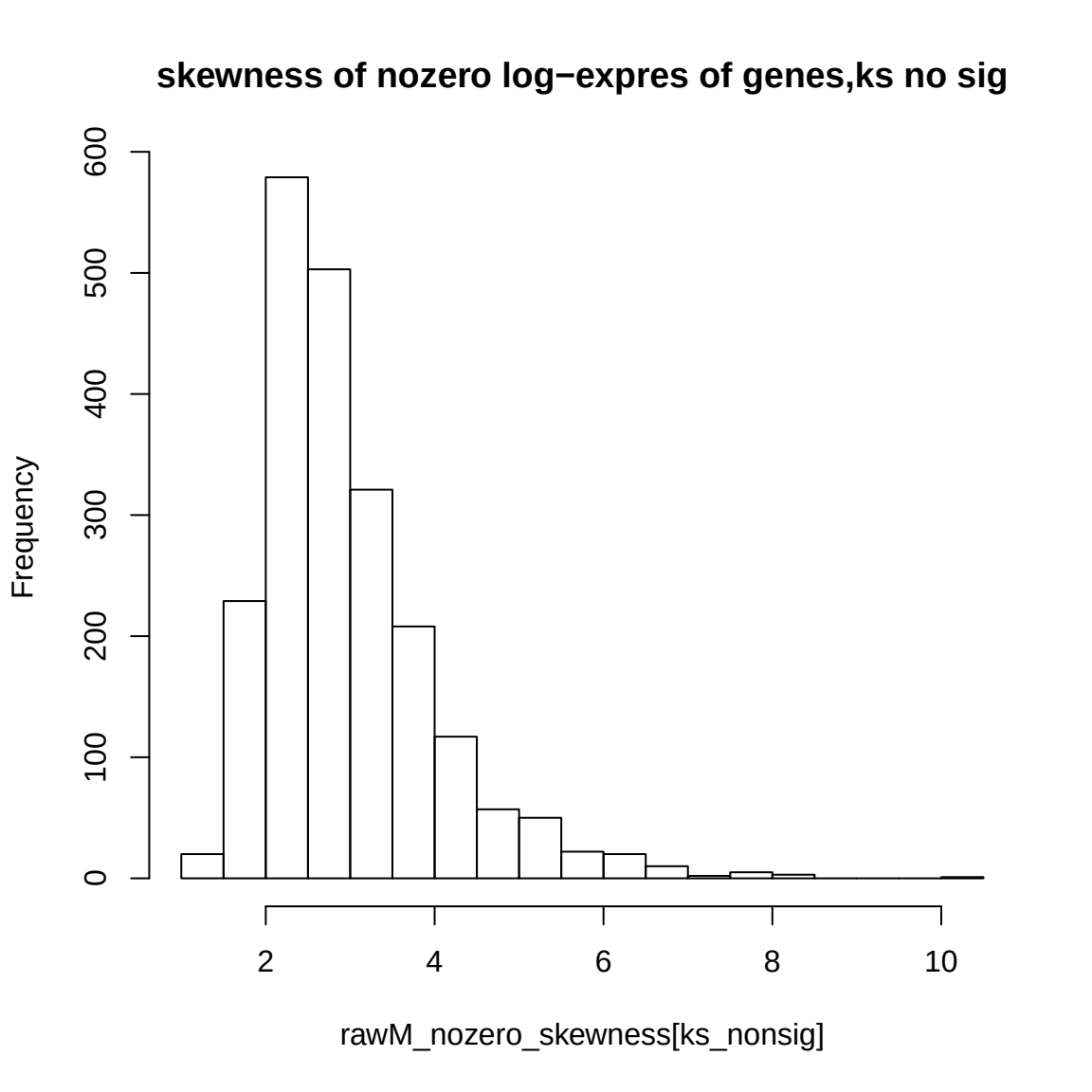

sd of nozero log−expres of genes,ksgreater sig
Frequency
0
10
20
30
40
50
0
2
4
6
8
10
rawM_nozero_sd[ksgreater_sig]

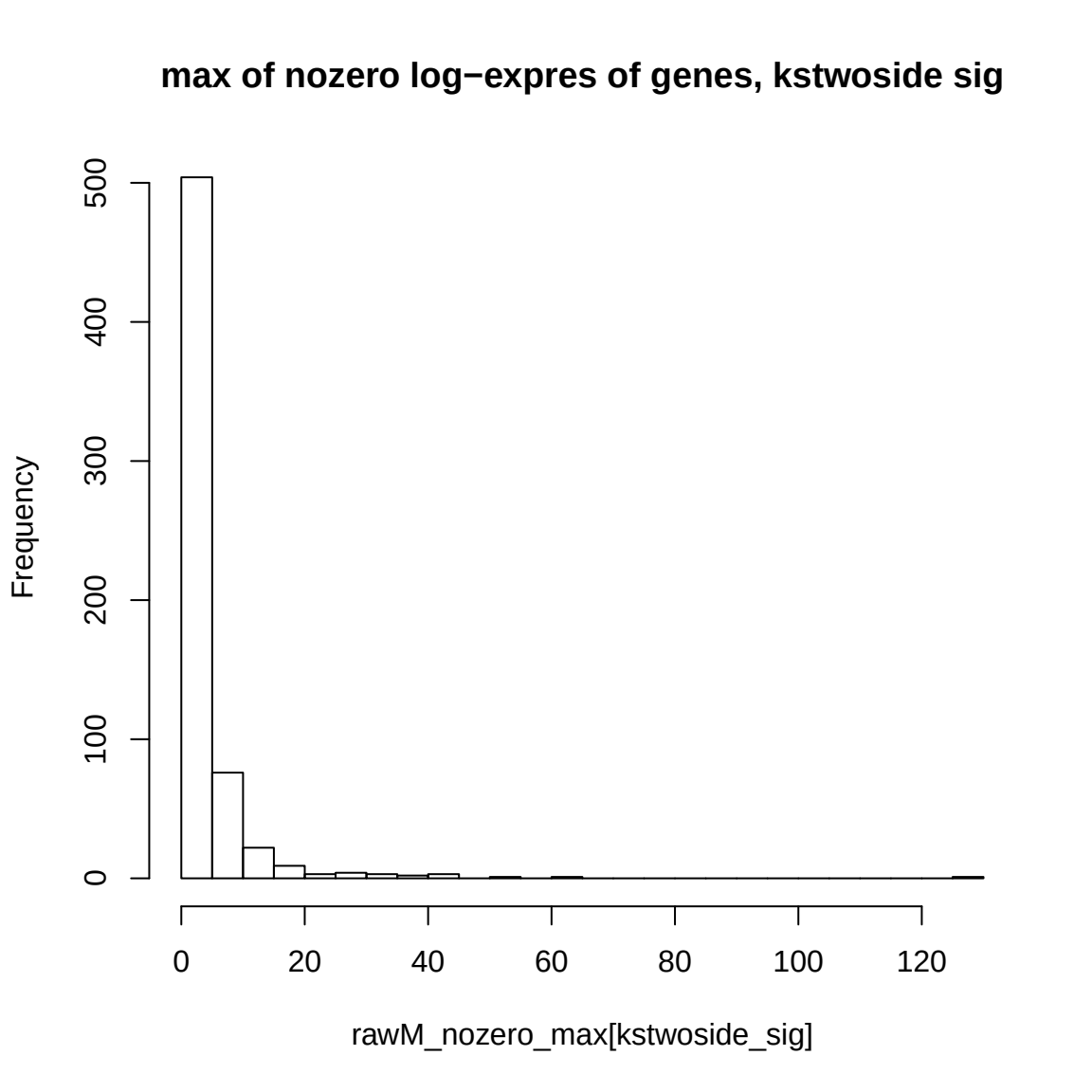

sd of nozero log−expres of genes,ks no sig
Frequency
0
200
400
600
800
1000
1200
0
2
4
6
8
rawM_nozero_sd[ks_nonsig]

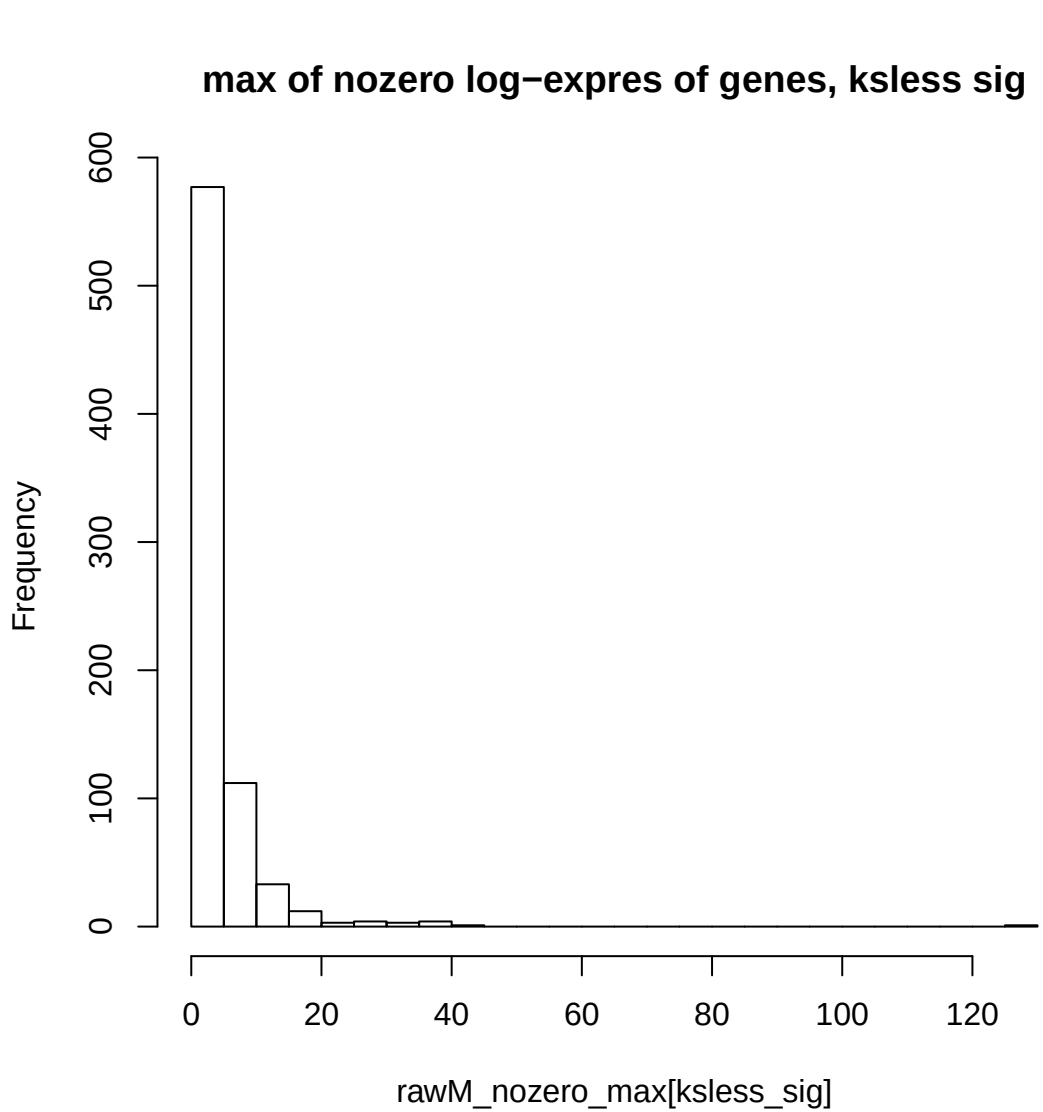

skewness of nozero log−expres of genes, kstwoside sig
Frequency
0
20
40
60
80
100
2
4
6
8
rawM_nozero_skewness[kstwoside_sig]

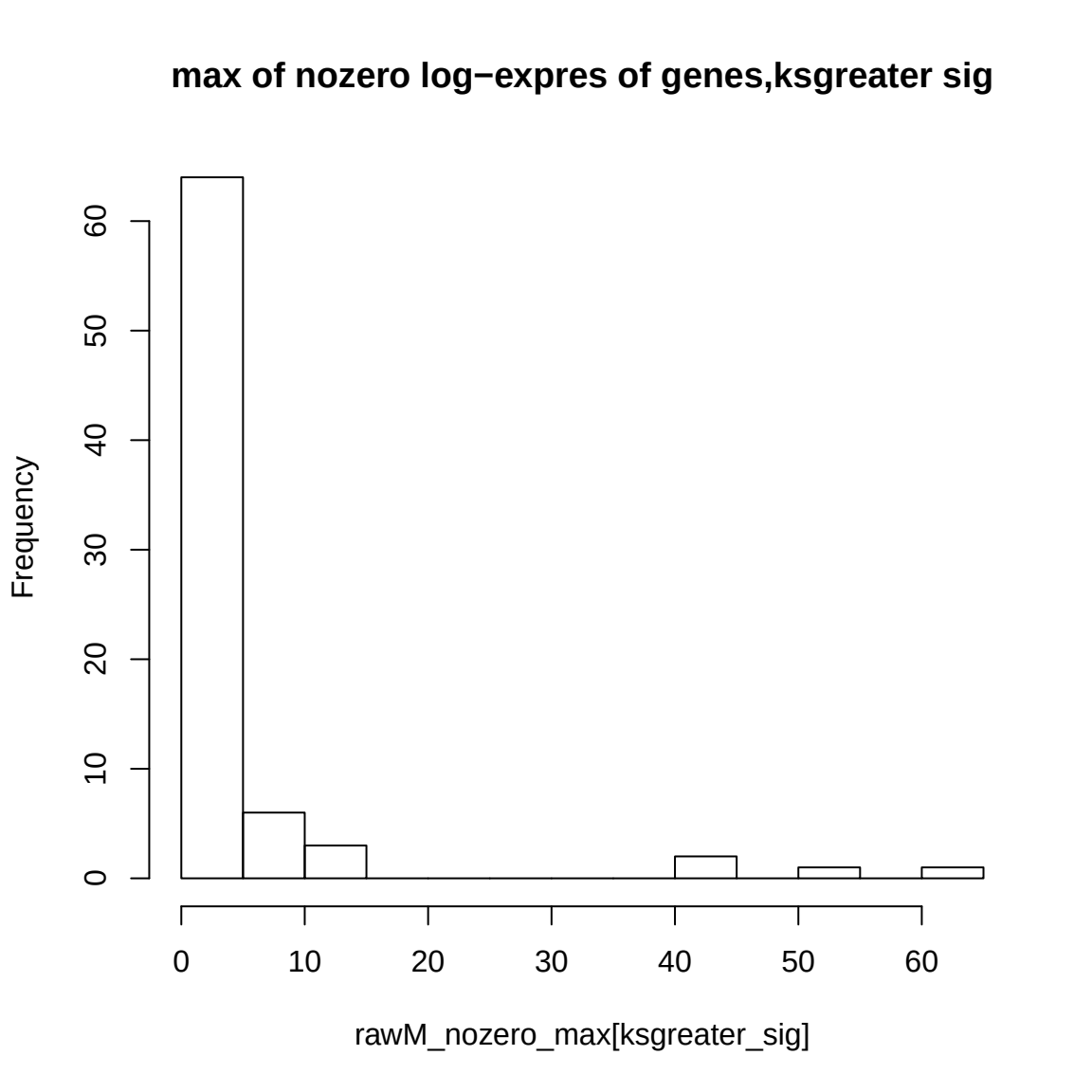

skewness of nozero log−expres of genes, ksless sig
Frequency
0
20
40
60
80
100
120
140
2
4
6
8
rawM_nozero_skewness[ksless_sig]

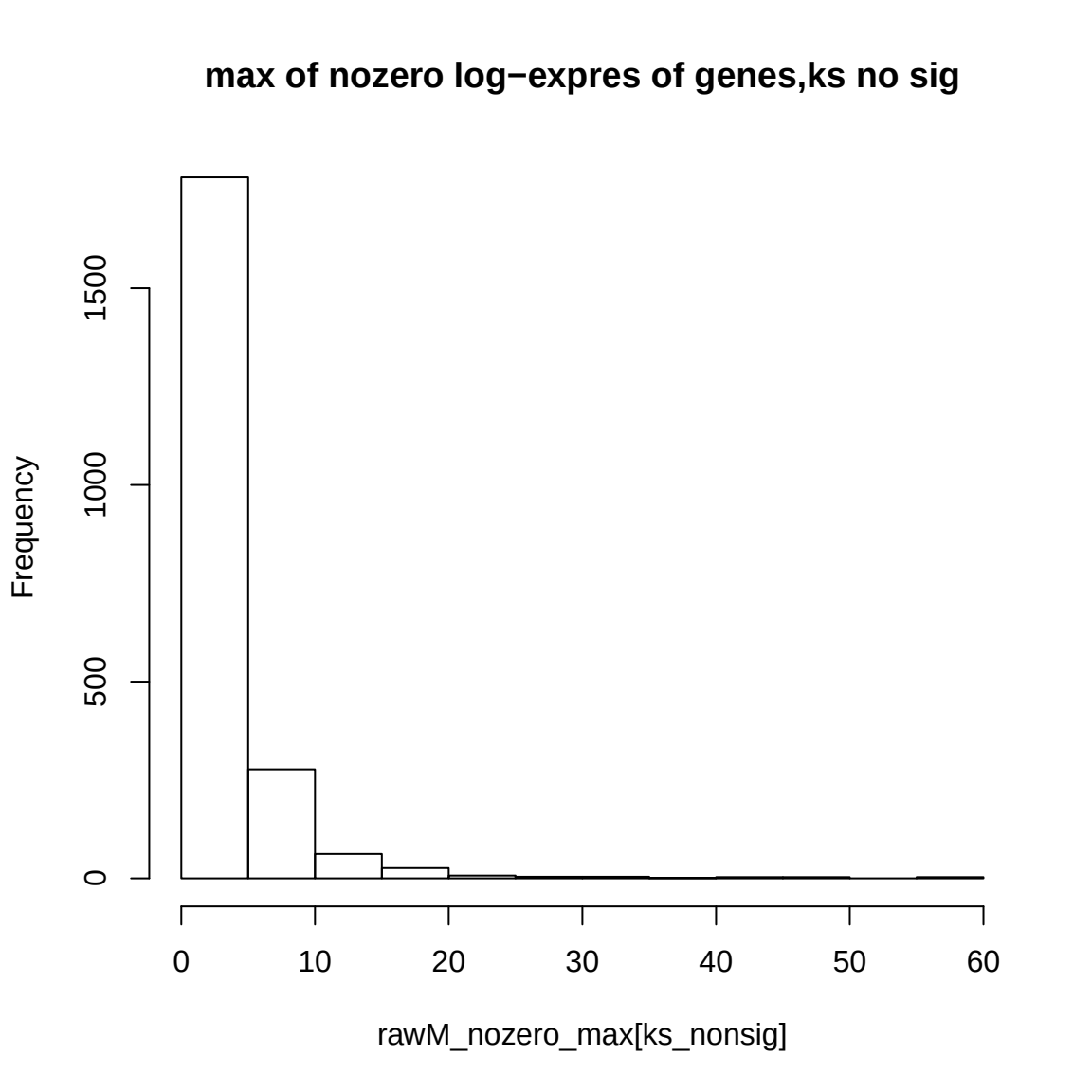

skewness of nozero log−expres of genes,ksgreater sig
Frequency
0
2
4
6
8
1
2
3
4
5
6
rawM_nozero_skewness[ksgreater_sig]

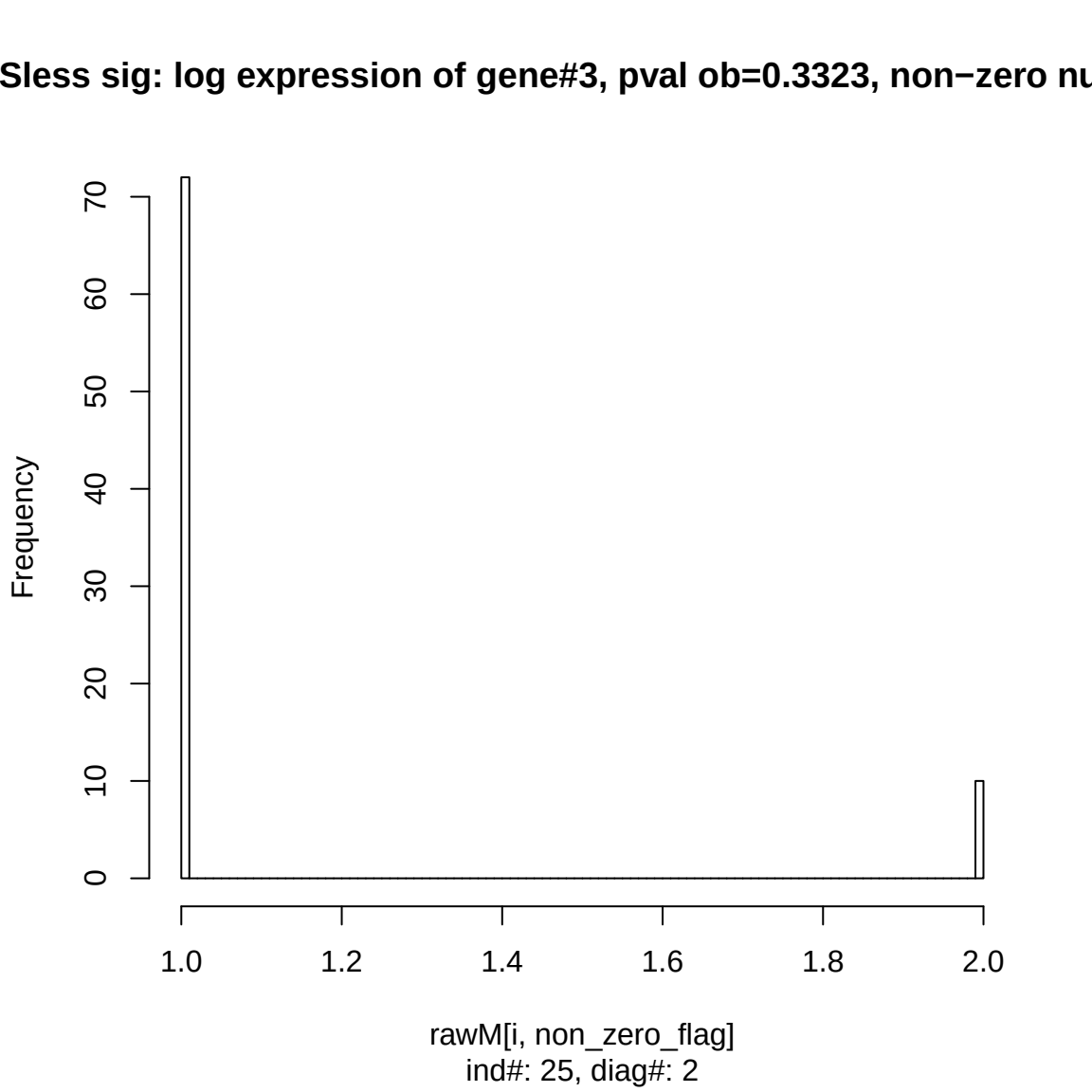

skewness of nozero log−expres of genes,ks no sig
Frequency
0
100
200
300
400
500
600
2
4
6
8
10
rawM_nozero_skewness[ks_nonsig]

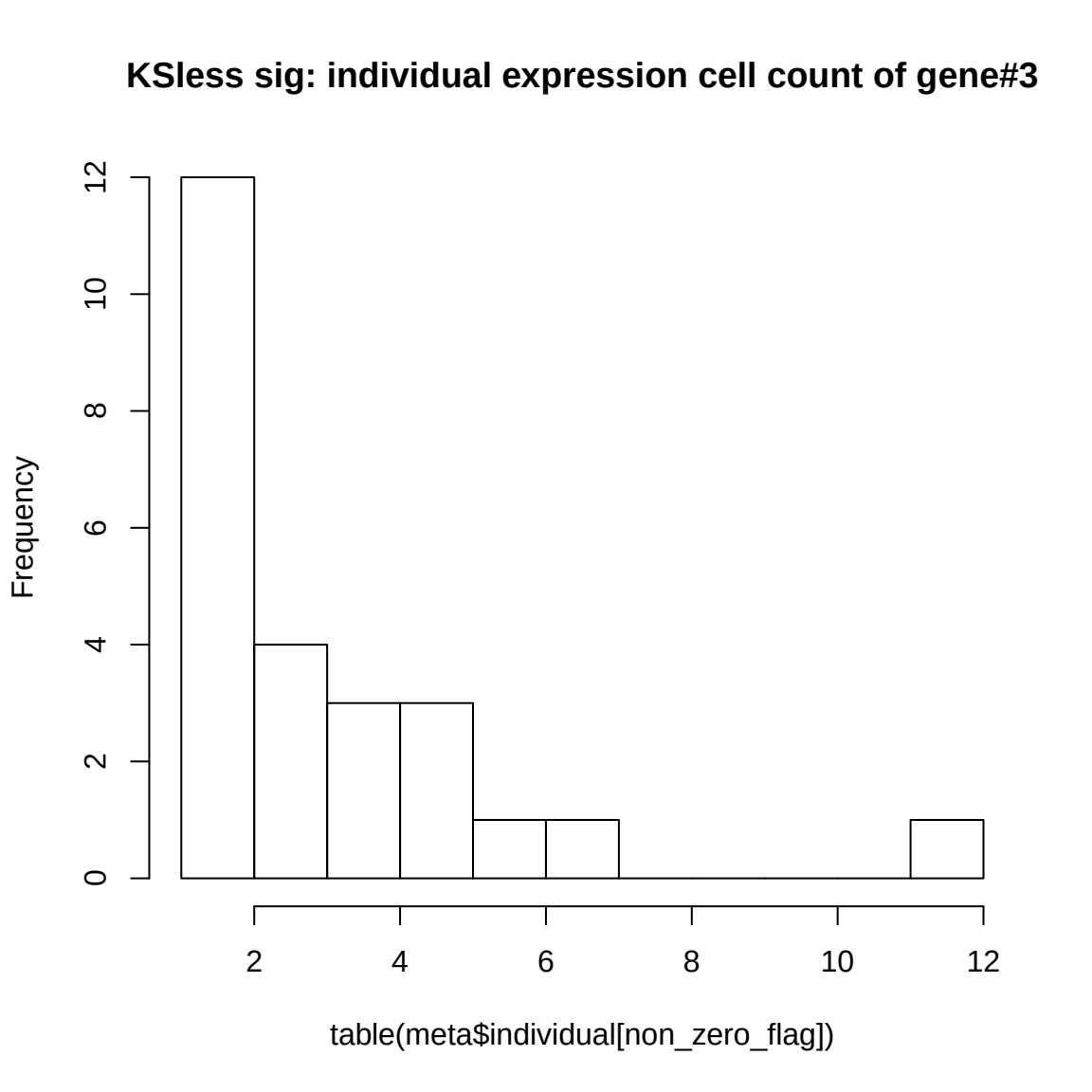

max of nozero log−expres of genes, kstwoside sig
Frequency
0
100
200
300
400
500
0
20
40
60
80
100
120
rawM_nozero_max[kstwoside_sig]

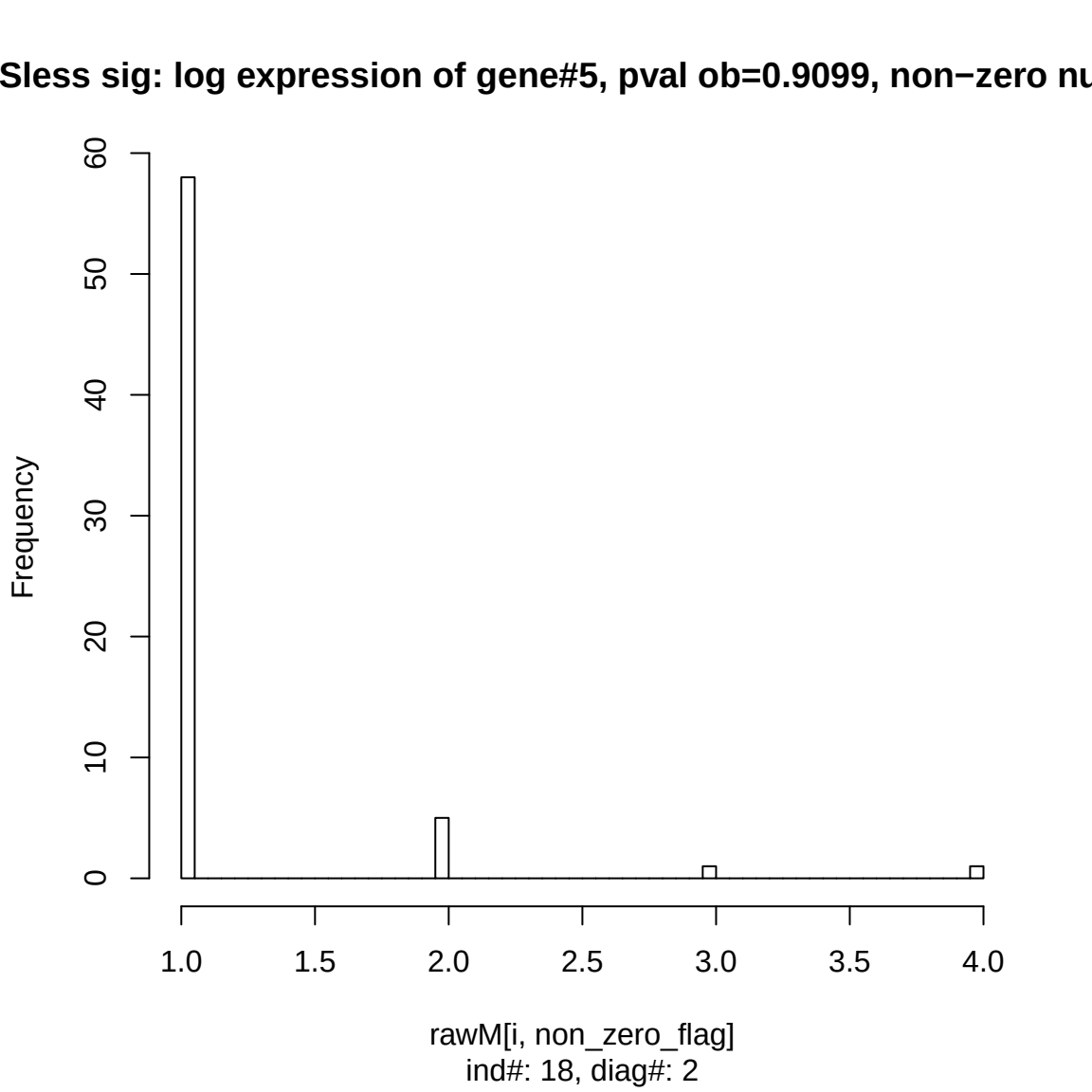

max of nozero log−expres of genes, ksless sig
Frequency
0
100
200
300
400
500
600
0
20
40
60
80
100
120
rawM_nozero_max[ksless_sig]

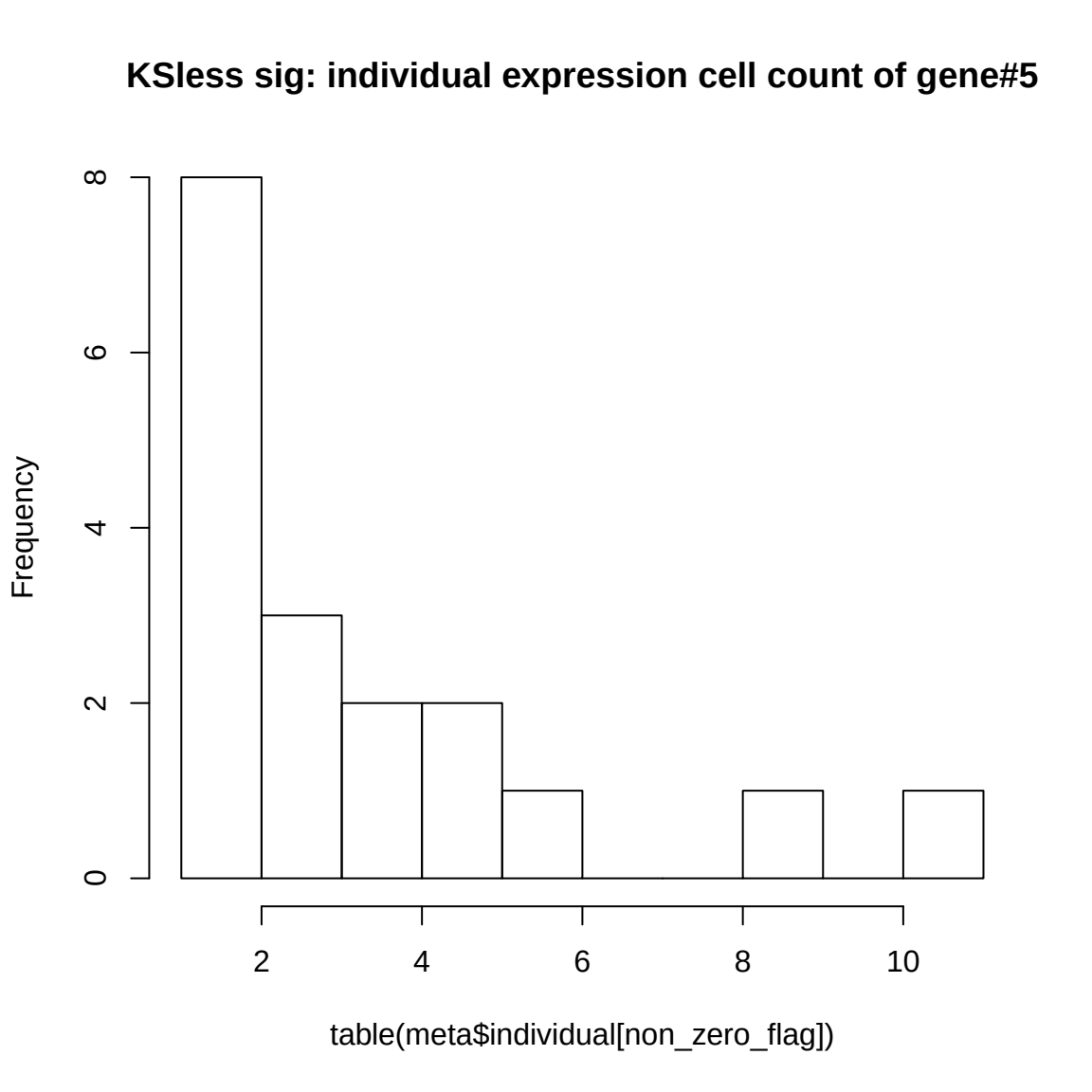

max of nozero log−expres of genes,ksgreater sig
Frequency
0
10
20
30
40
50
60
rawM_nozero_max[ksgreater_sig]

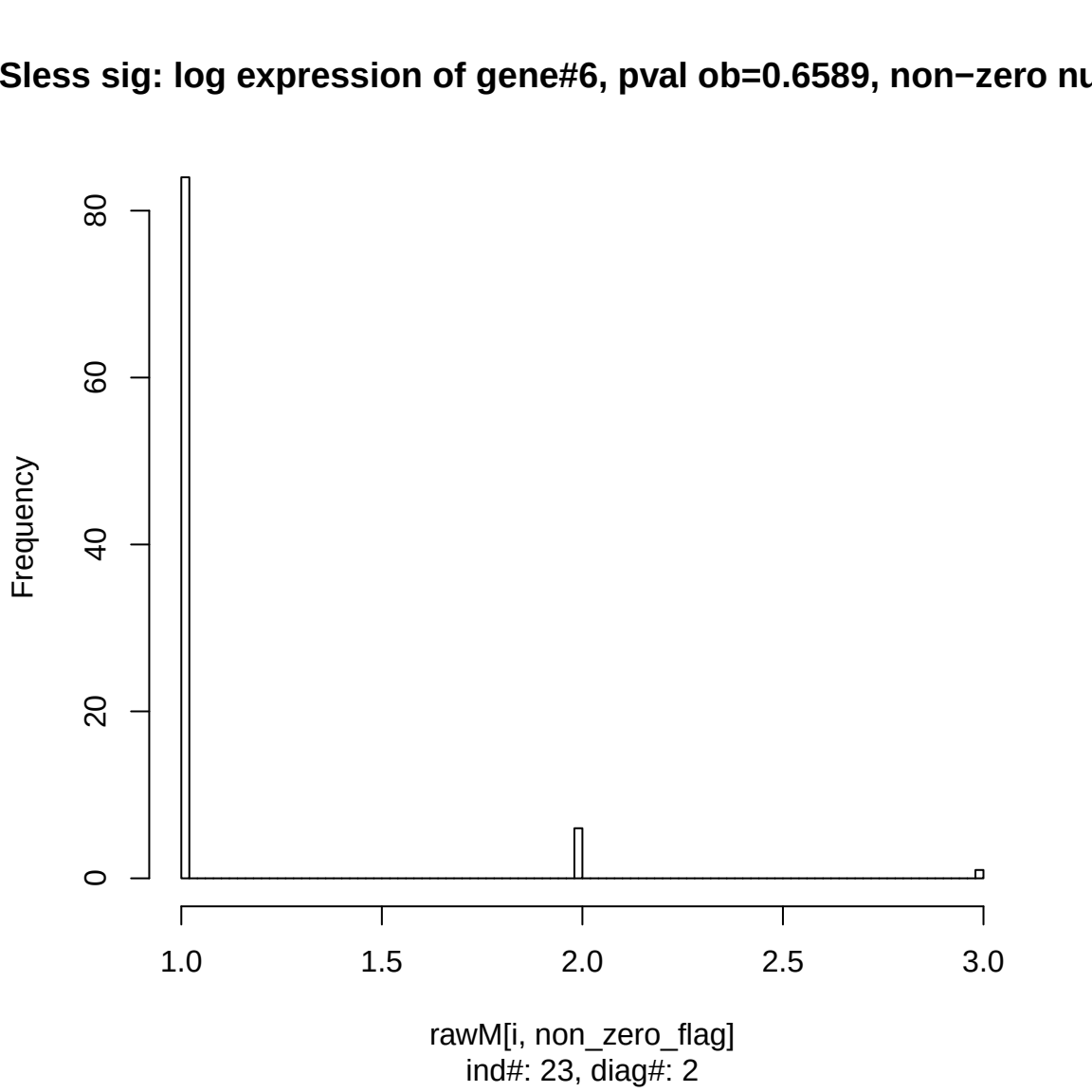

max of nozero log−expres of genes,ks no sig
Frequency
0
500
1000
1500
0
10
20
30
40
50
60
rawM_nozero_max[ks_nonsig]

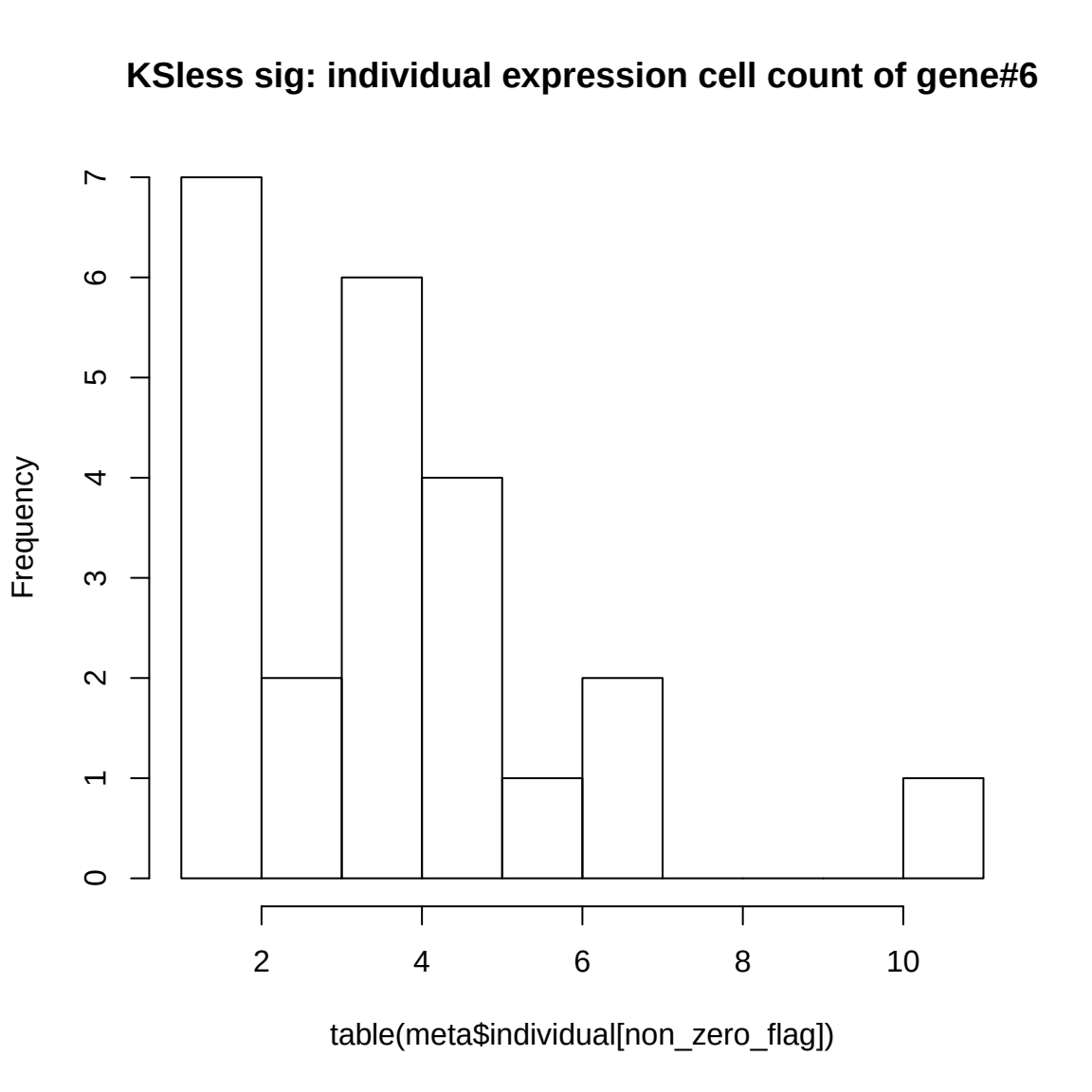

Sless sig: log expression of gene#3, pval ob=0.3323, non−zero nu
Frequency
0
10
20
30
40
50
60
70
1.0
1.2
1.4
1.6
1.8
2.0
rawM[i, non_zero_flag]
ind#: 25, diag#: 2

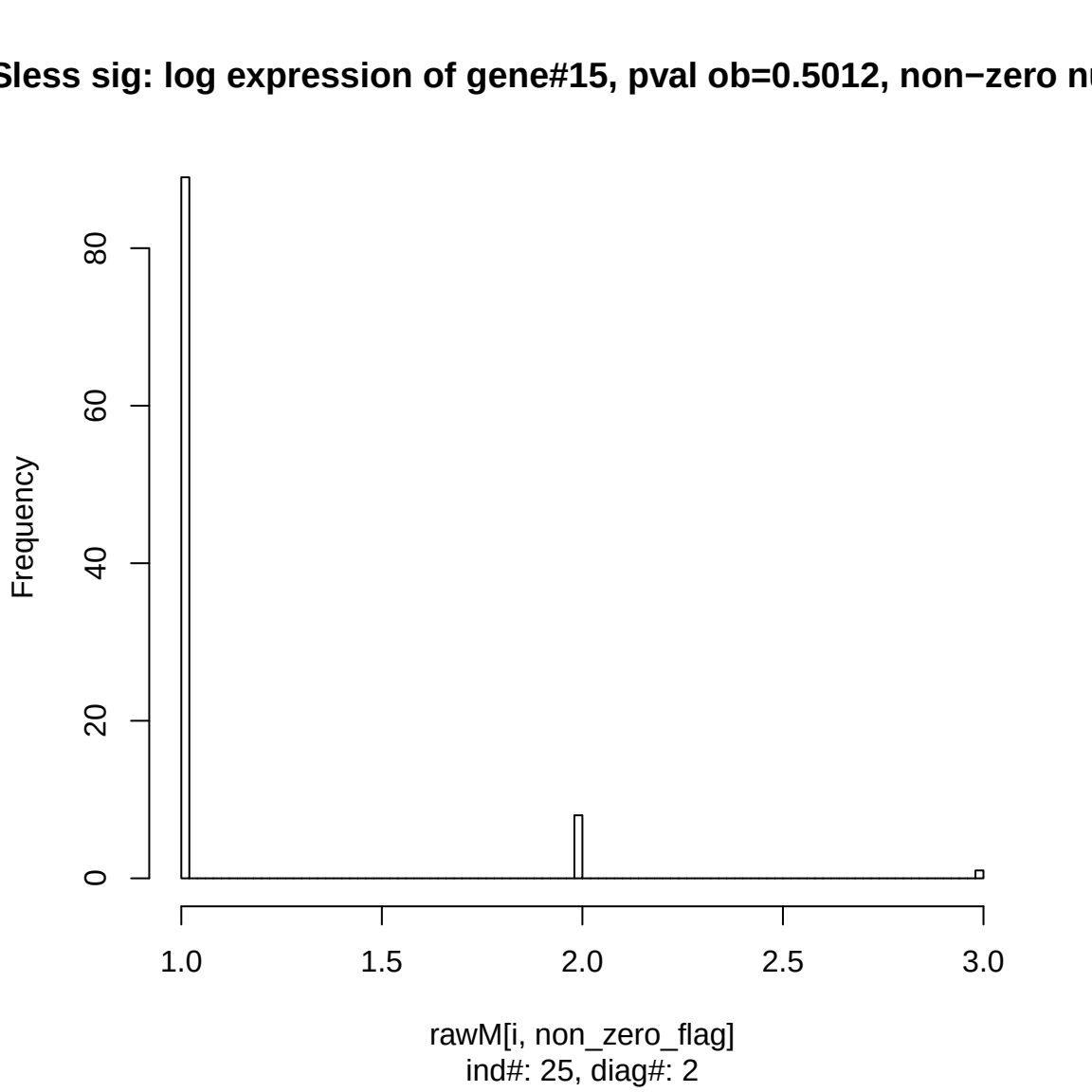

KSless sig: individual expression cell count of gene#3
Frequency
0
2
4
6
8
10
12
2
4
6
8
10
12
table(meta$individual[non_zero_flag])

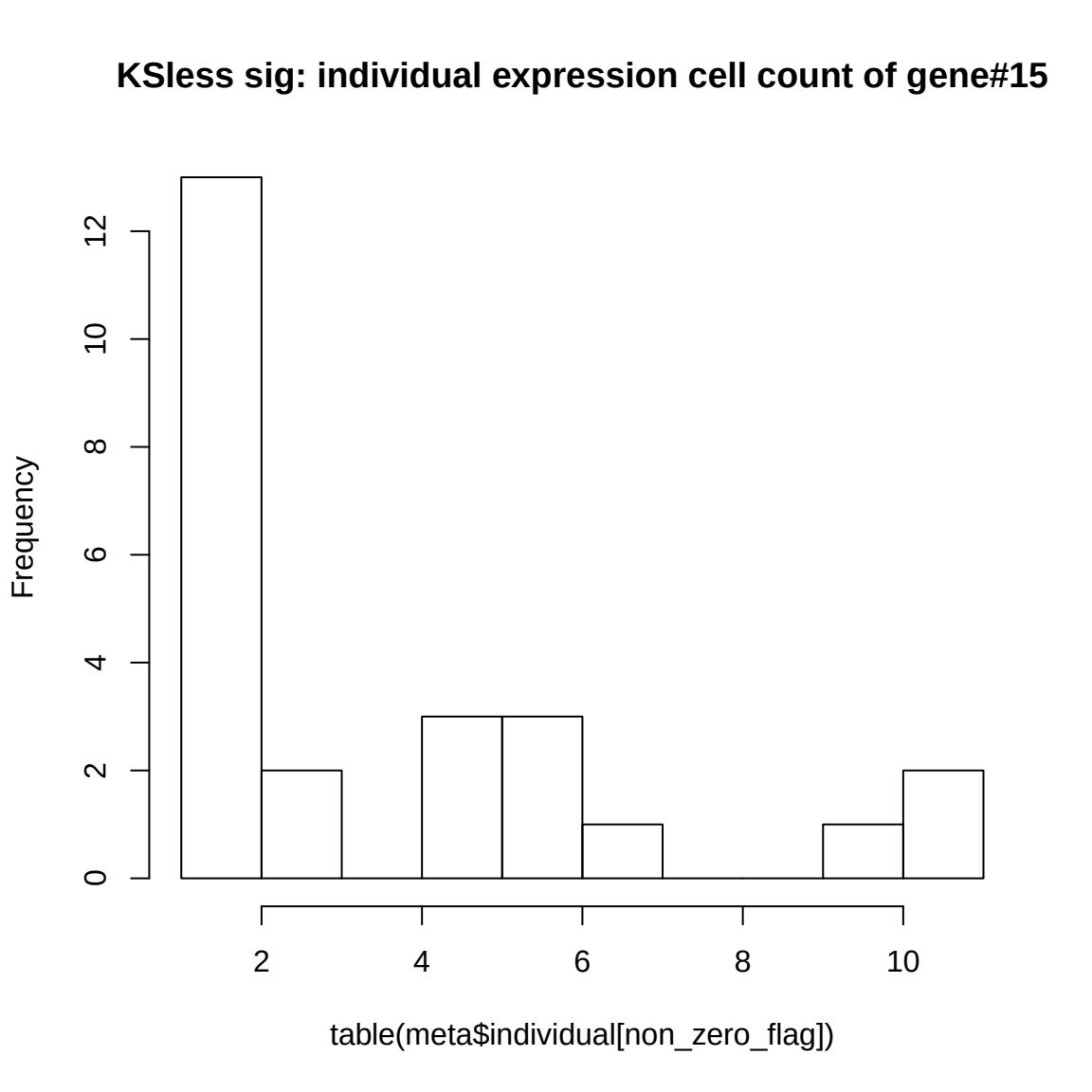

Sless sig: log expression of gene#5, pval ob=0.9099, non−zero nu
Frequency
0
10
20
30
40
50
60
1.0
1.5
2.0
2.5
3.0
3.5
4.0
rawM[i, non_zero_flag]
ind#: 18, diag#: 2

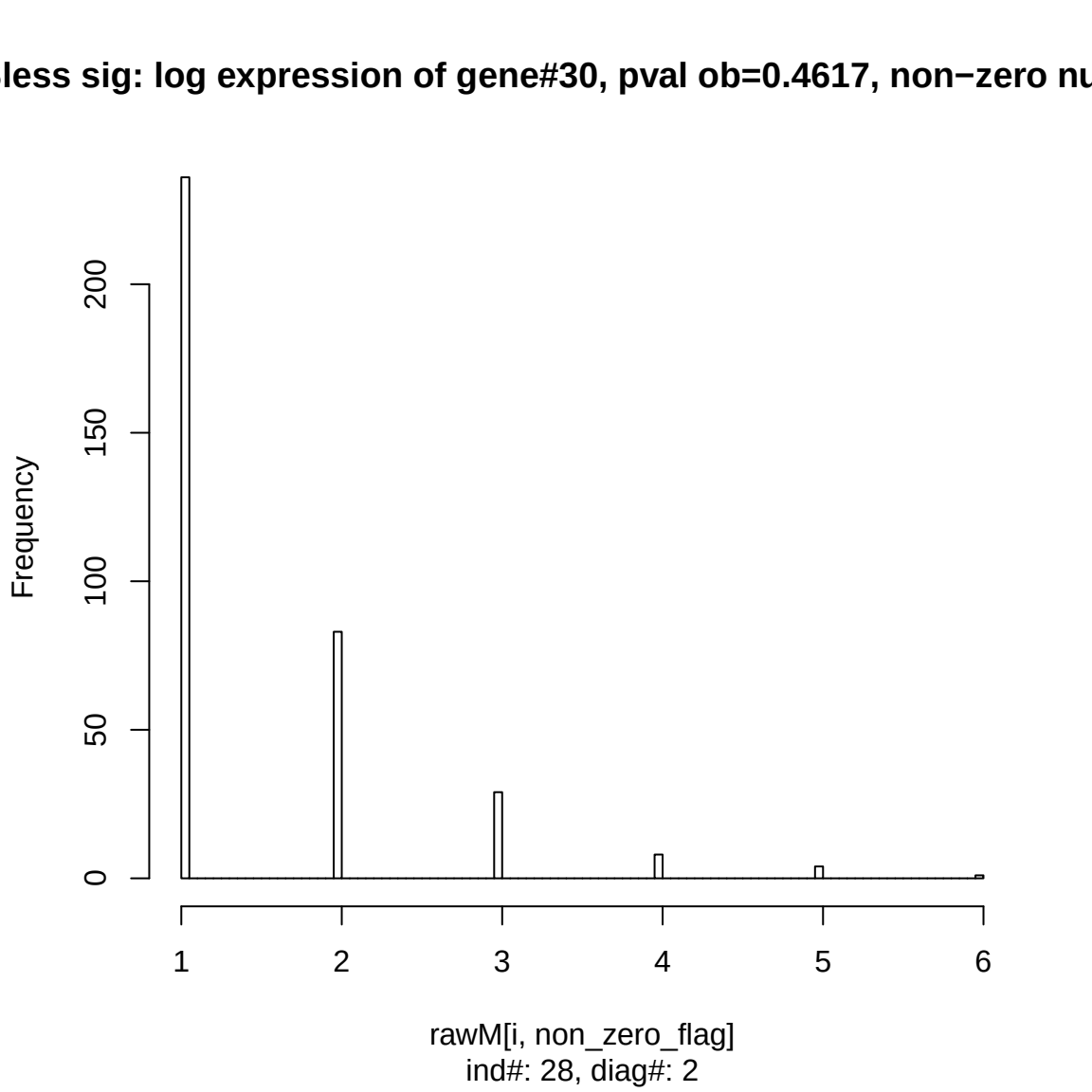

KSless sig: individual expression cell count of gene#5
Frequency
0
2
4
6
8
2
4
6
8
10
table(meta$individual[non_zero_flag])

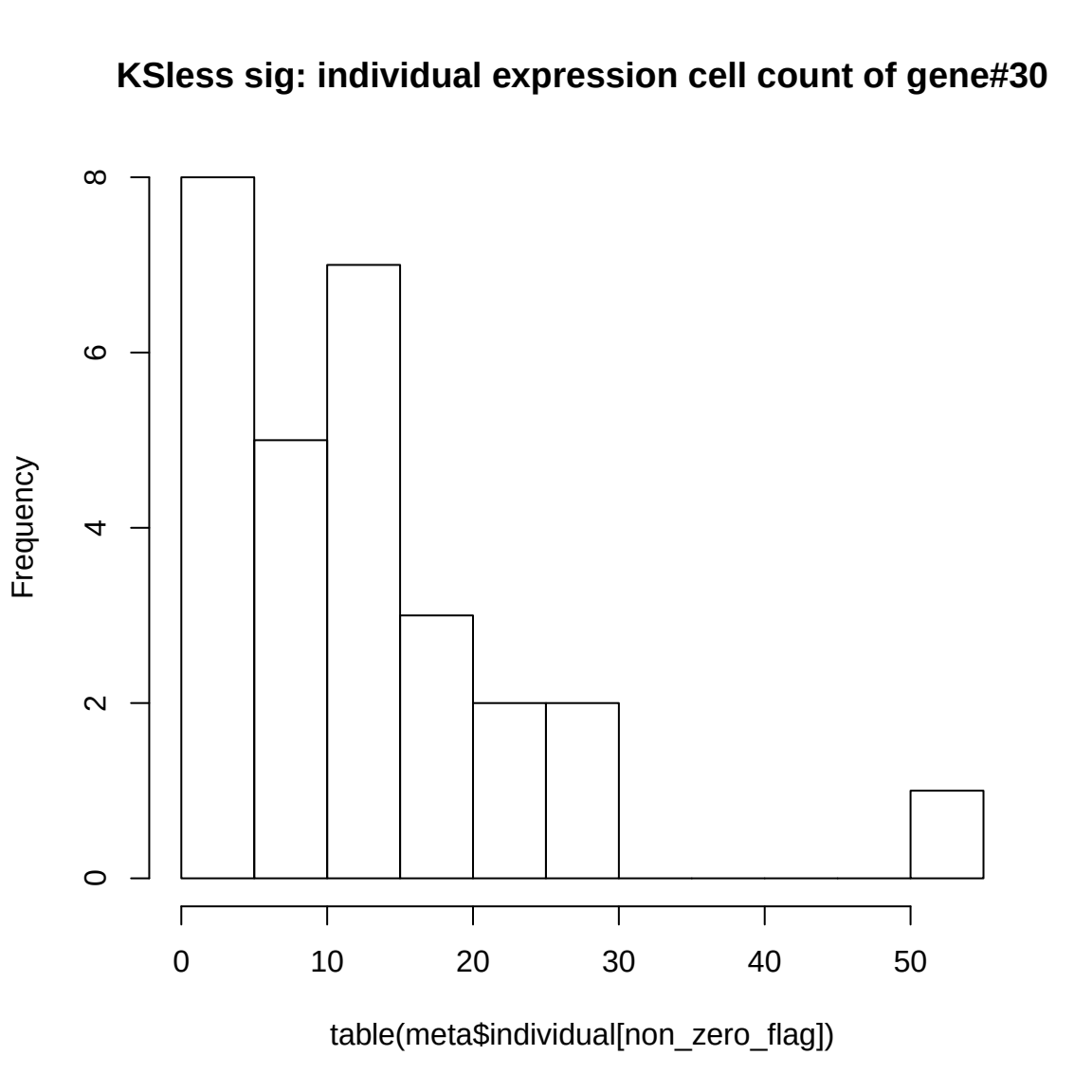

Sless sig: log expression of gene#6, pval ob=0.6589, non−zero nu
Frequency
0
20
40
60
80
1.0
1.5
2.0
2.5
3.0
rawM[i, non_zero_flag]
ind#: 23, diag#: 2

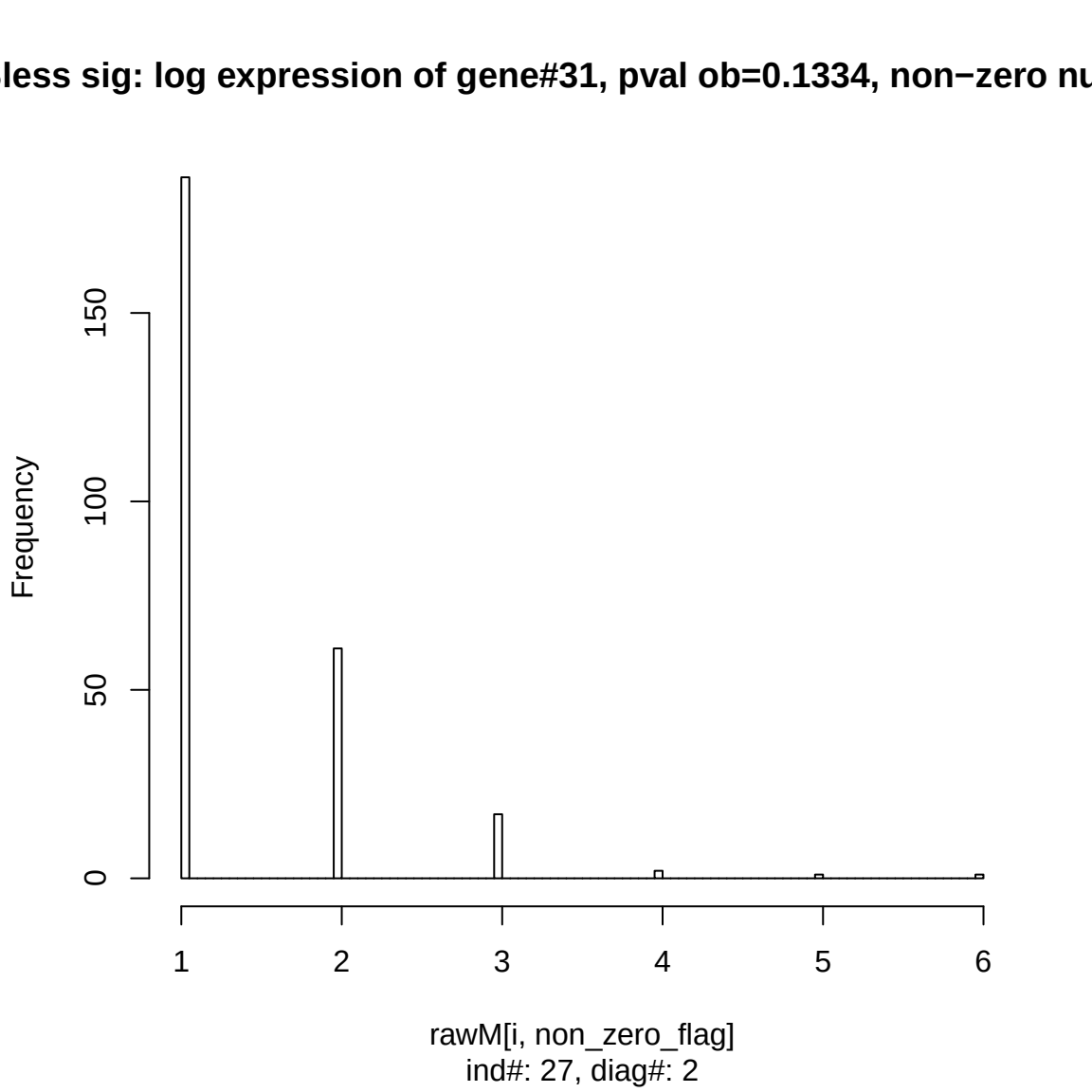

KSless sig: individual expression cell count of gene#6
Frequency
0
1
2
3
4
5
6
7
2
4
6
8
10
table(meta$individual[non_zero_flag])

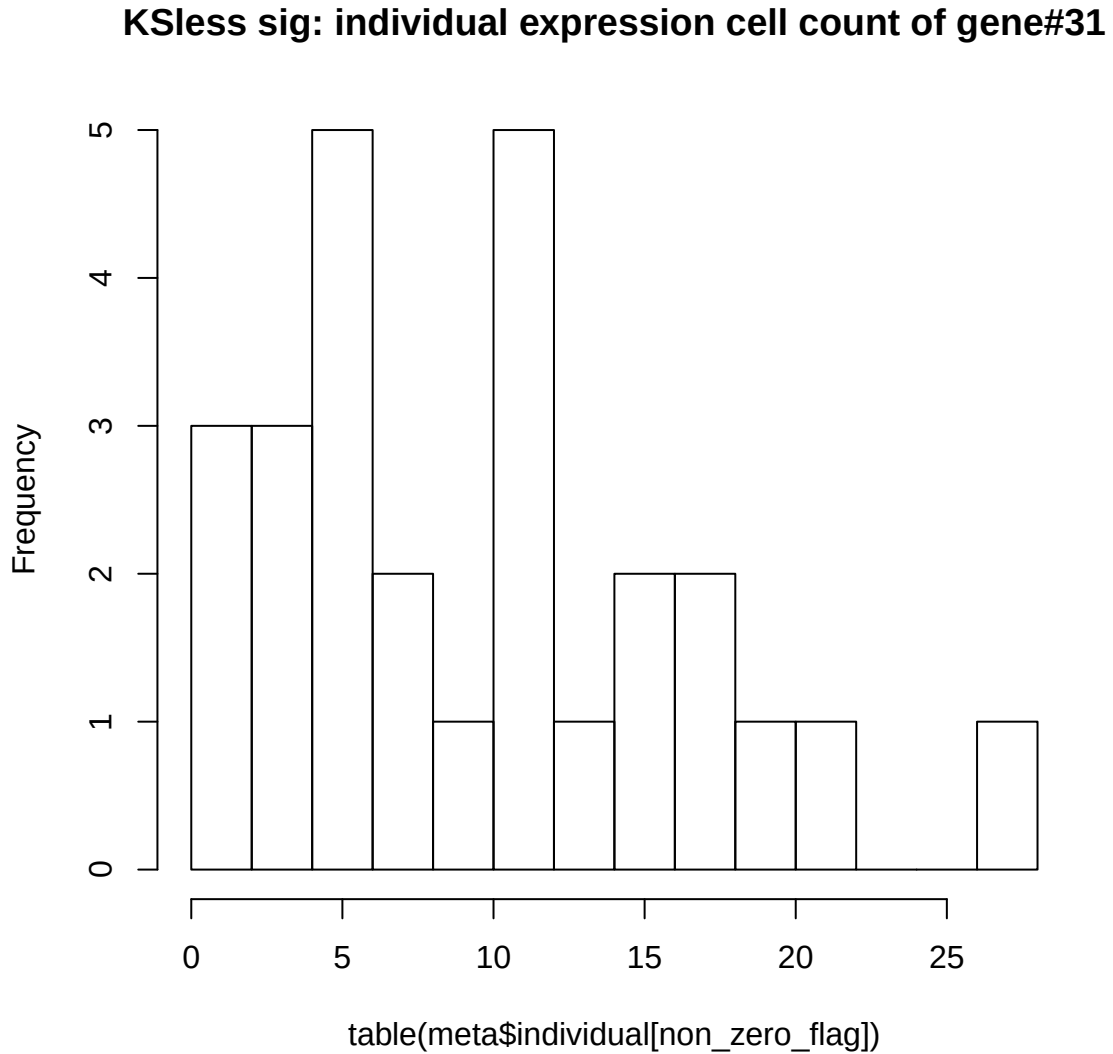

Sless sig: log expression of gene#15, pval ob=0.5012, non−zero nu
Frequency
0
20
40
60
80
1.0
1.5
2.0
2.5
3.0
rawM[i, non_zero_flag]
ind#: 25, diag#: 2

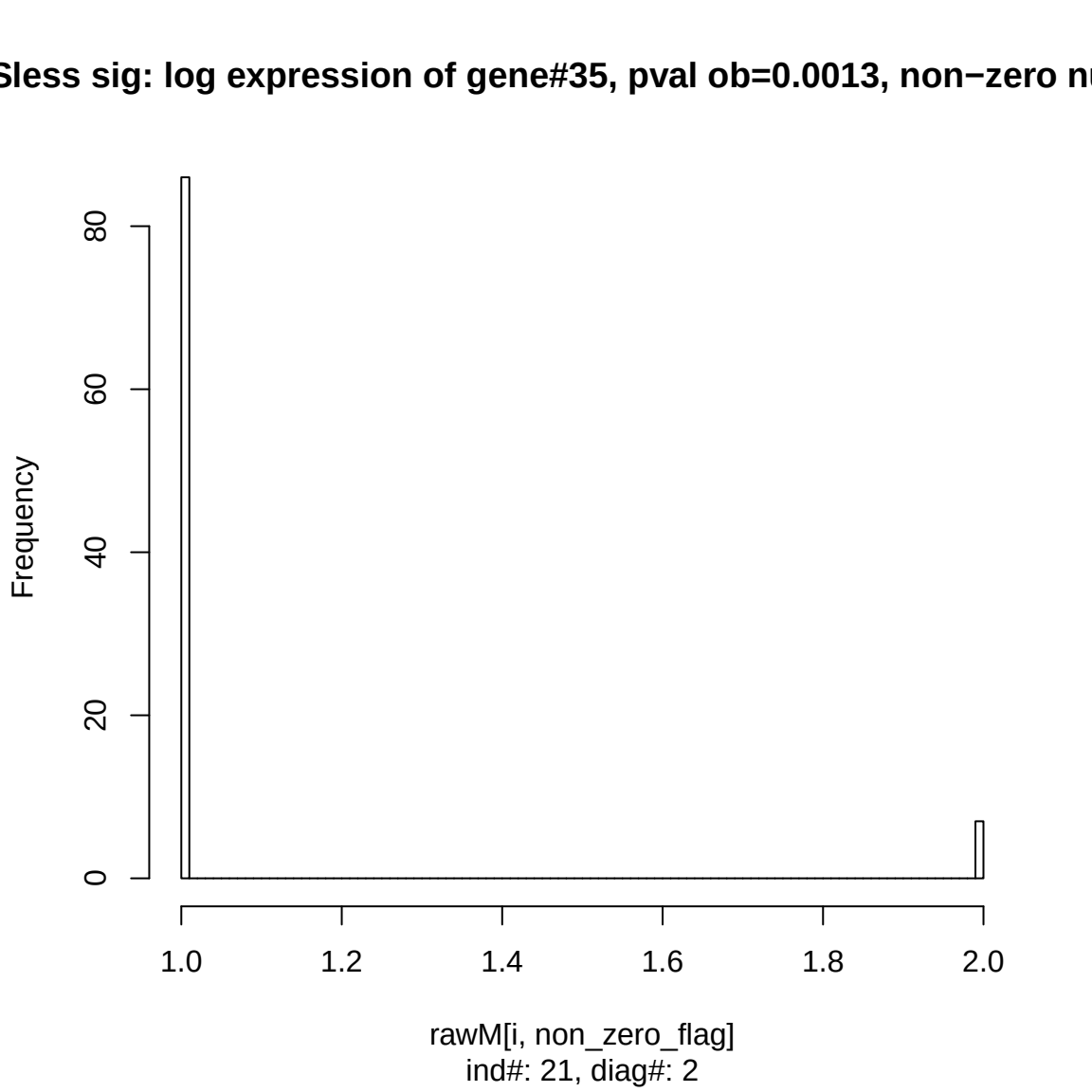

KSless sig: individual expression cell count of gene#15
Frequency
0
2
4
6
8
10
12
2
4
6
8
10
table(meta$individual[non_zero_flag])

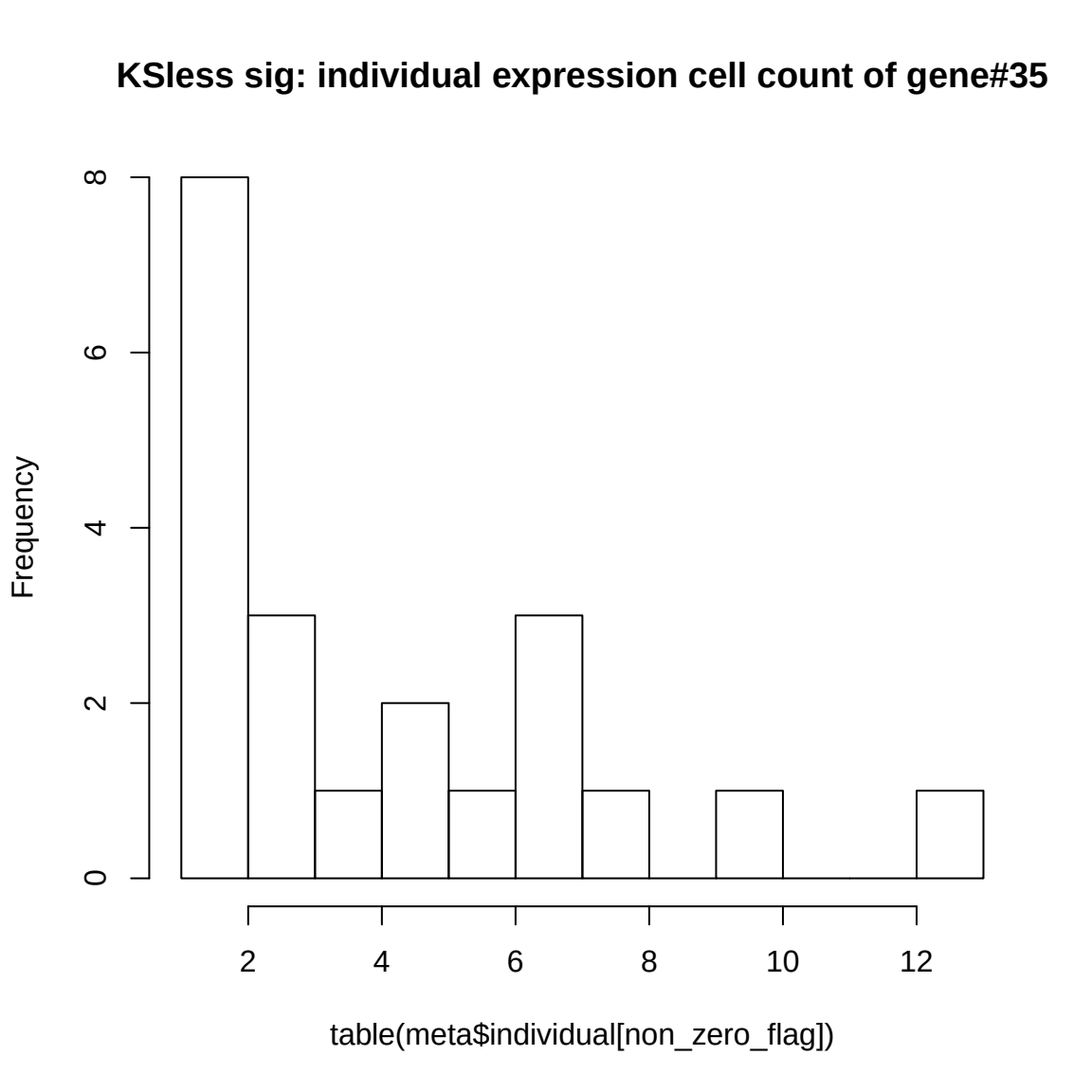

less sig: log expression of gene#30, pval ob=0.4617, non−zero nu
Frequency
0
50
100
150
200
1
2
3
4
5
6
rawM[i, non_zero_flag]
ind#: 28, diag#: 2

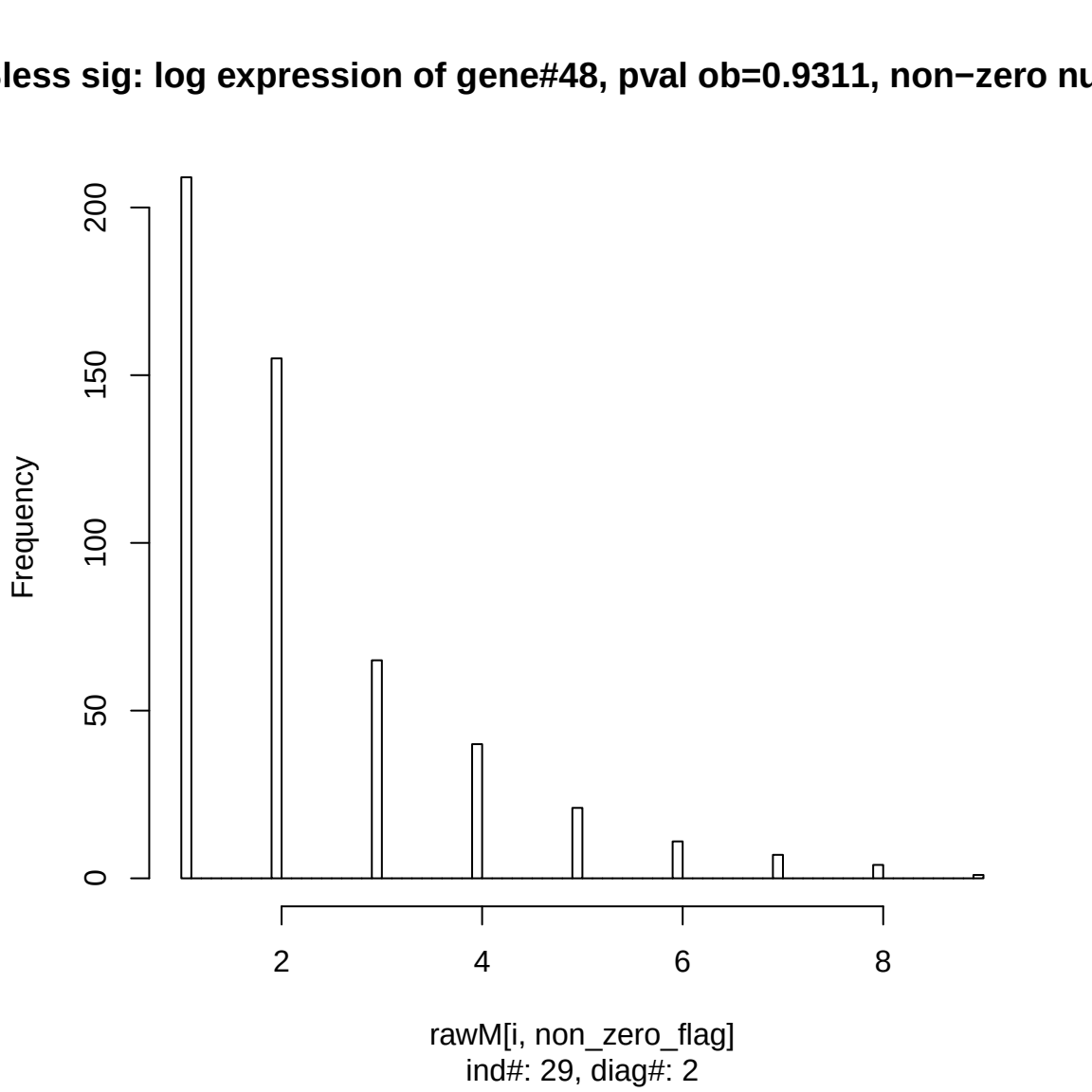

KSless sig: individual expression cell count of gene#30
Frequency
0
2
4
6
8
0
10
20
30
40
50
table(meta$individual[non_zero_flag])

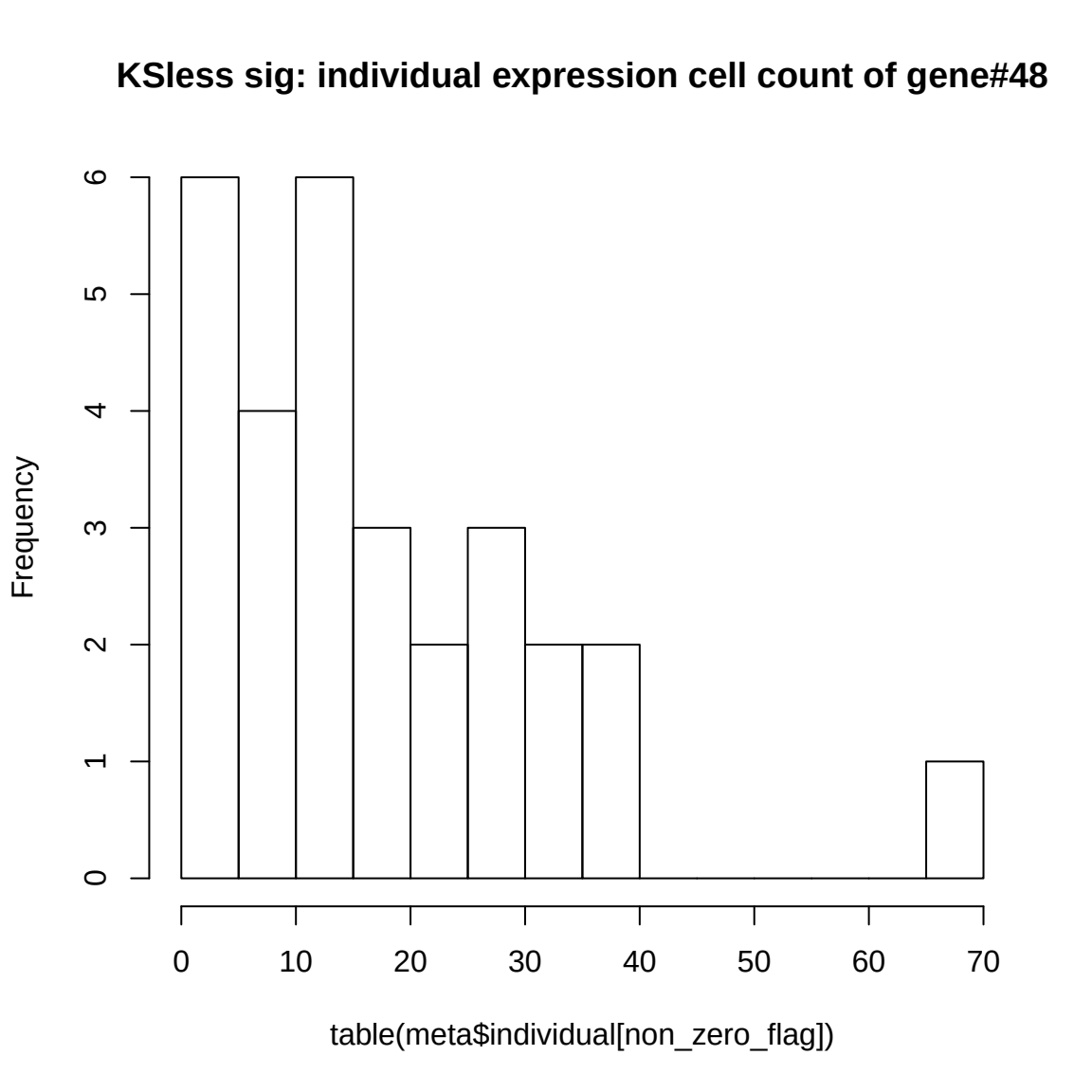

less sig: log expression of gene#31, pval ob=0.1334, non−zero nu
Frequency
0
50
100
150
1
2
3
4
5
6
rawM[i, non_zero_flag]
ind#: 27, diag#: 2

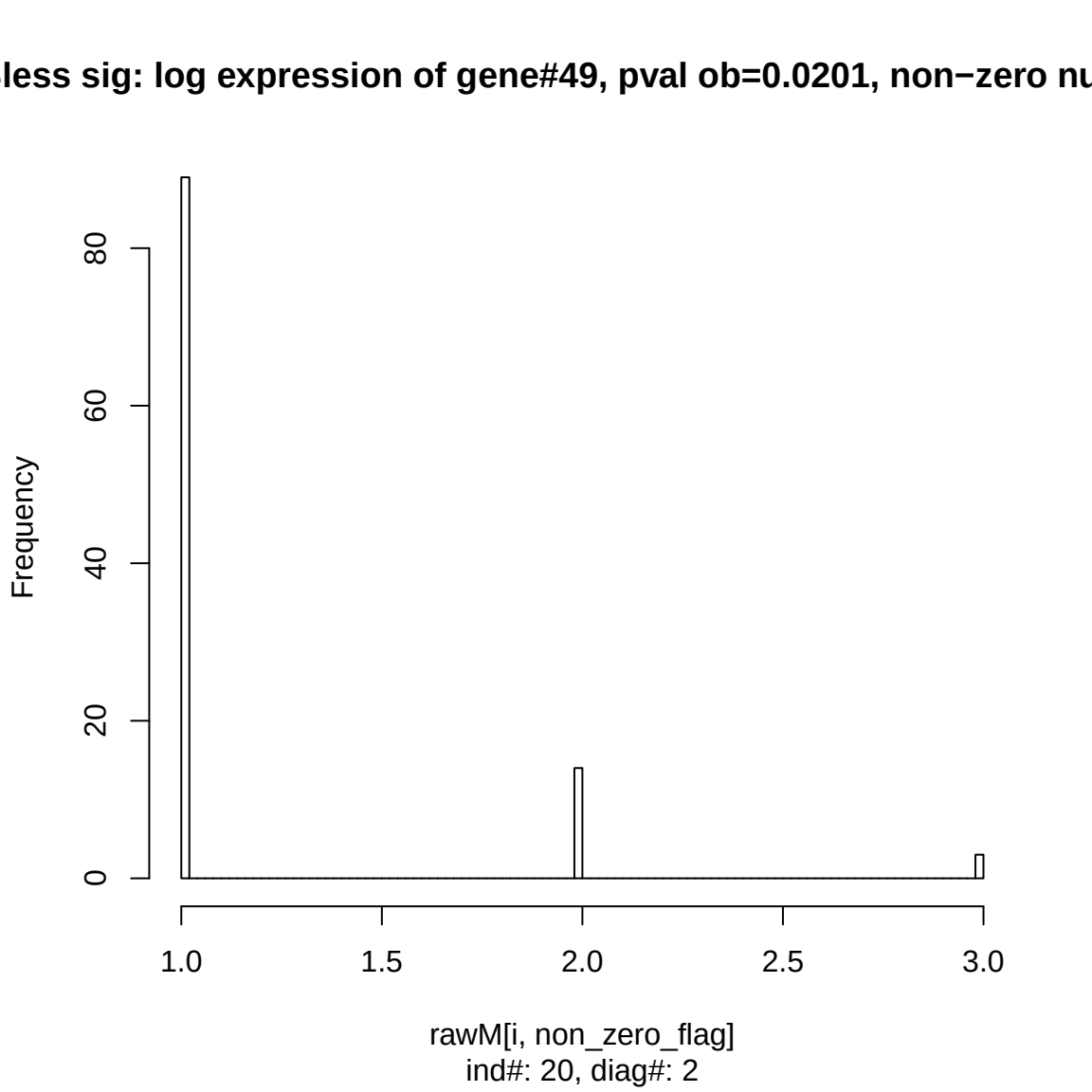

KSless sig: individual expression cell count of gene#31
Frequency
0
1
2
3
4
5
0
5
10
15
20
25
table(meta$individual[non_zero_flag])

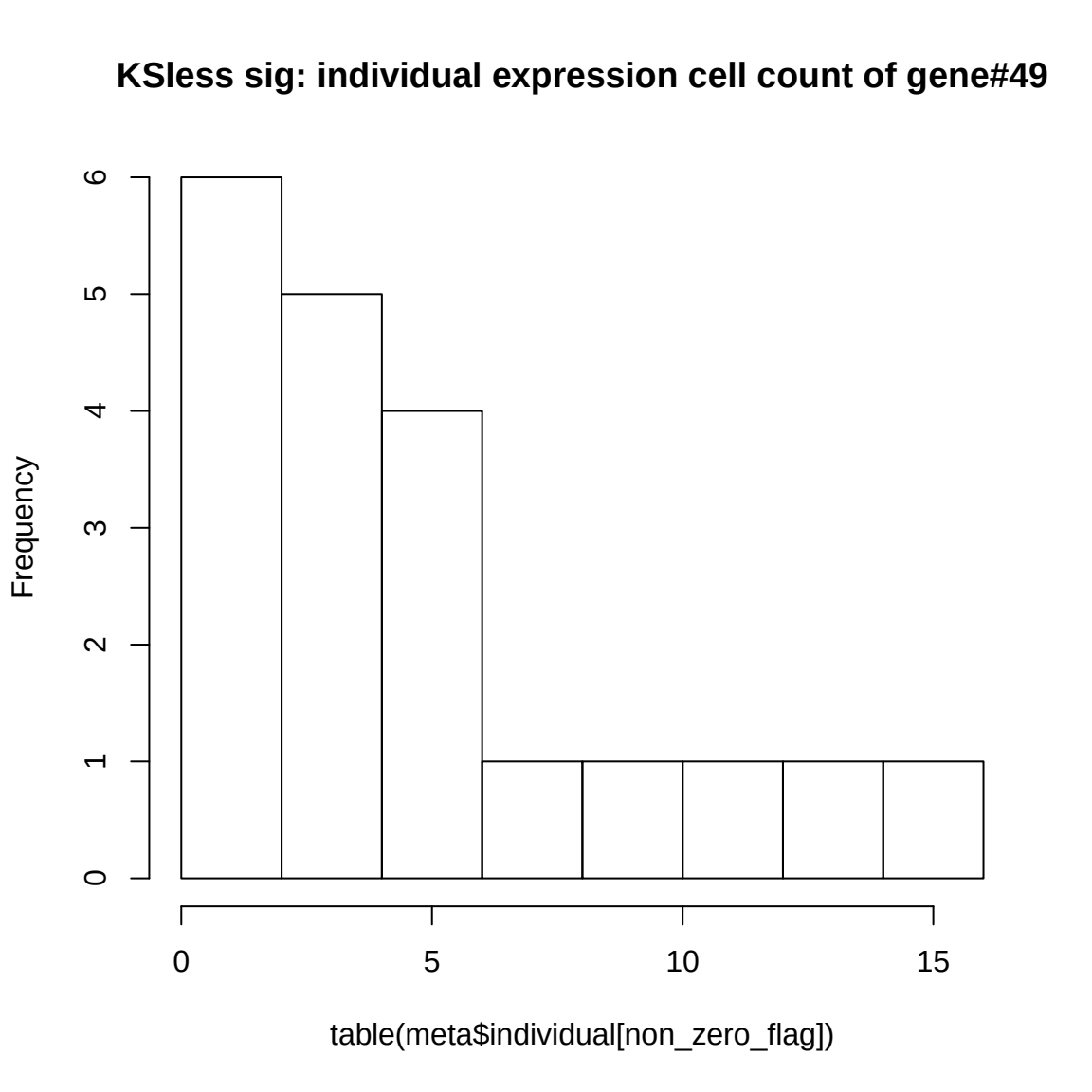

Sless sig: log expression of gene#35, pval ob=0.0013, non−zero nu
Frequency
0
20
40
60
80
1.0
1.2
1.4
1.6
1.8
2.0
rawM[i, non_zero_flag]
ind#: 21, diag#: 2

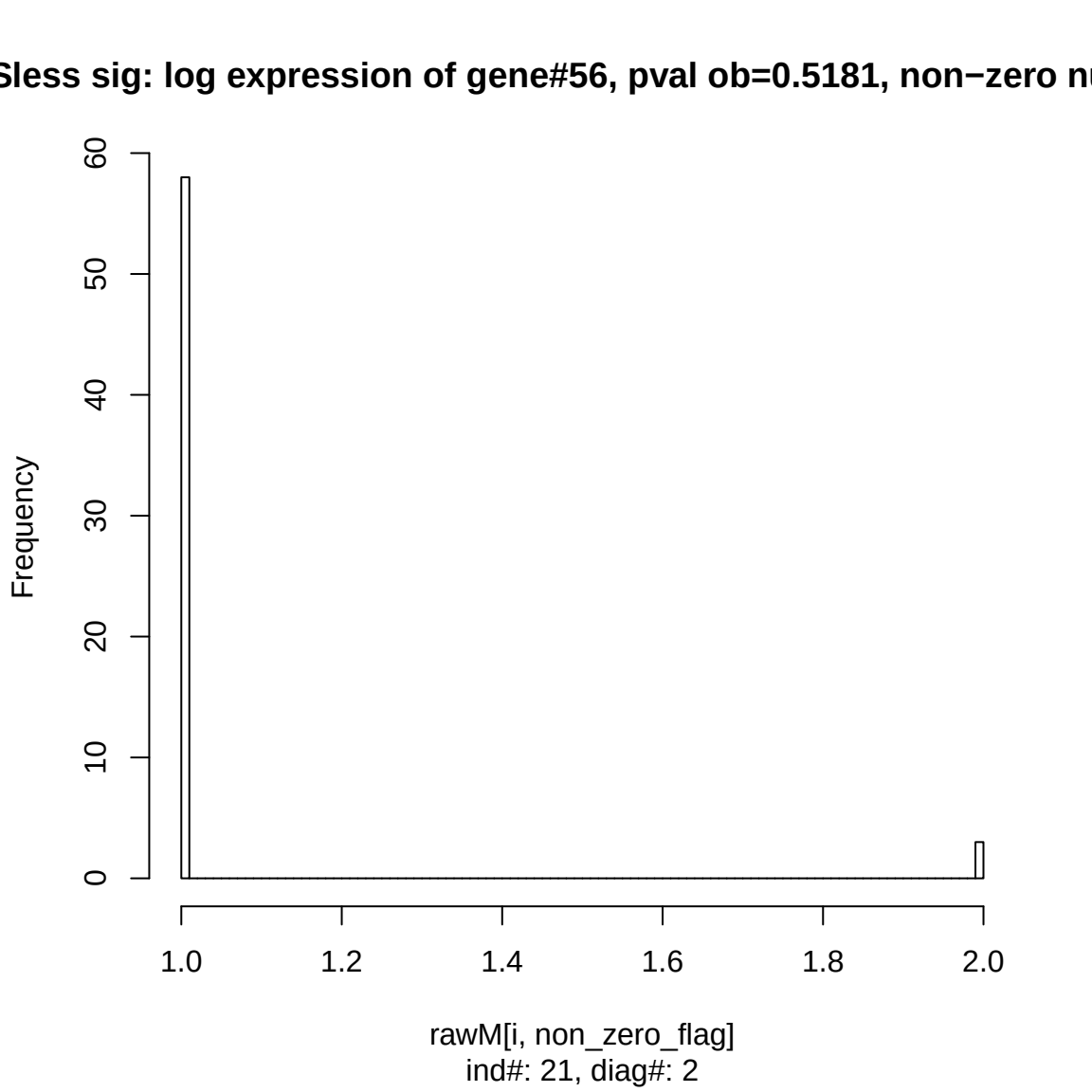

KSless sig: individual expression cell count of gene#35
Frequency
0
2
4
6
8
2
4
6
8
10
12
table(meta$individual[non_zero_flag])

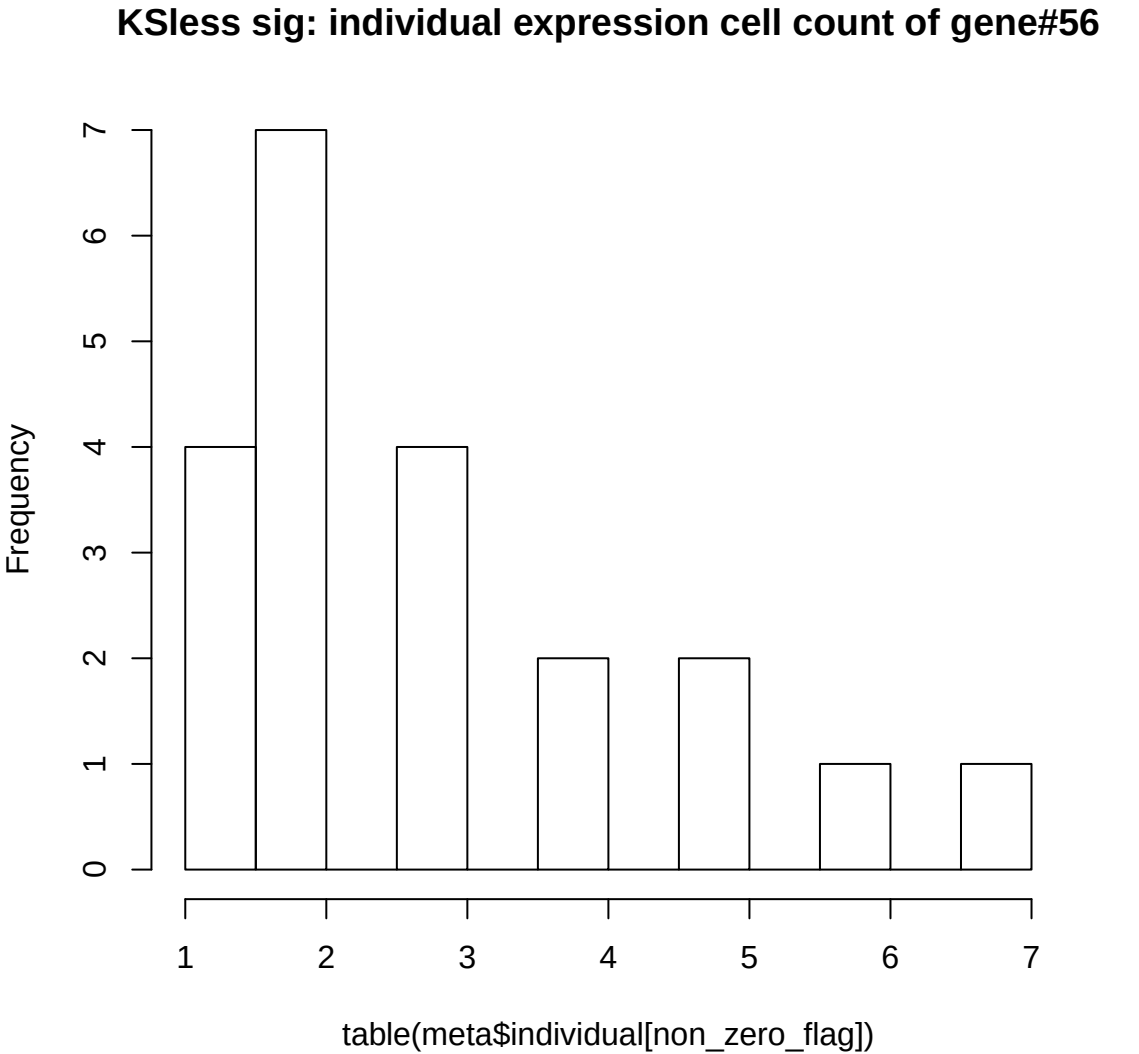

less sig: log expression of gene#48, pval ob=0.9311, non−zero nu
Frequency
0
50
100
150
200
2
4
6
8
rawM[i, non_zero_flag]
ind#: 29, diag#: 2

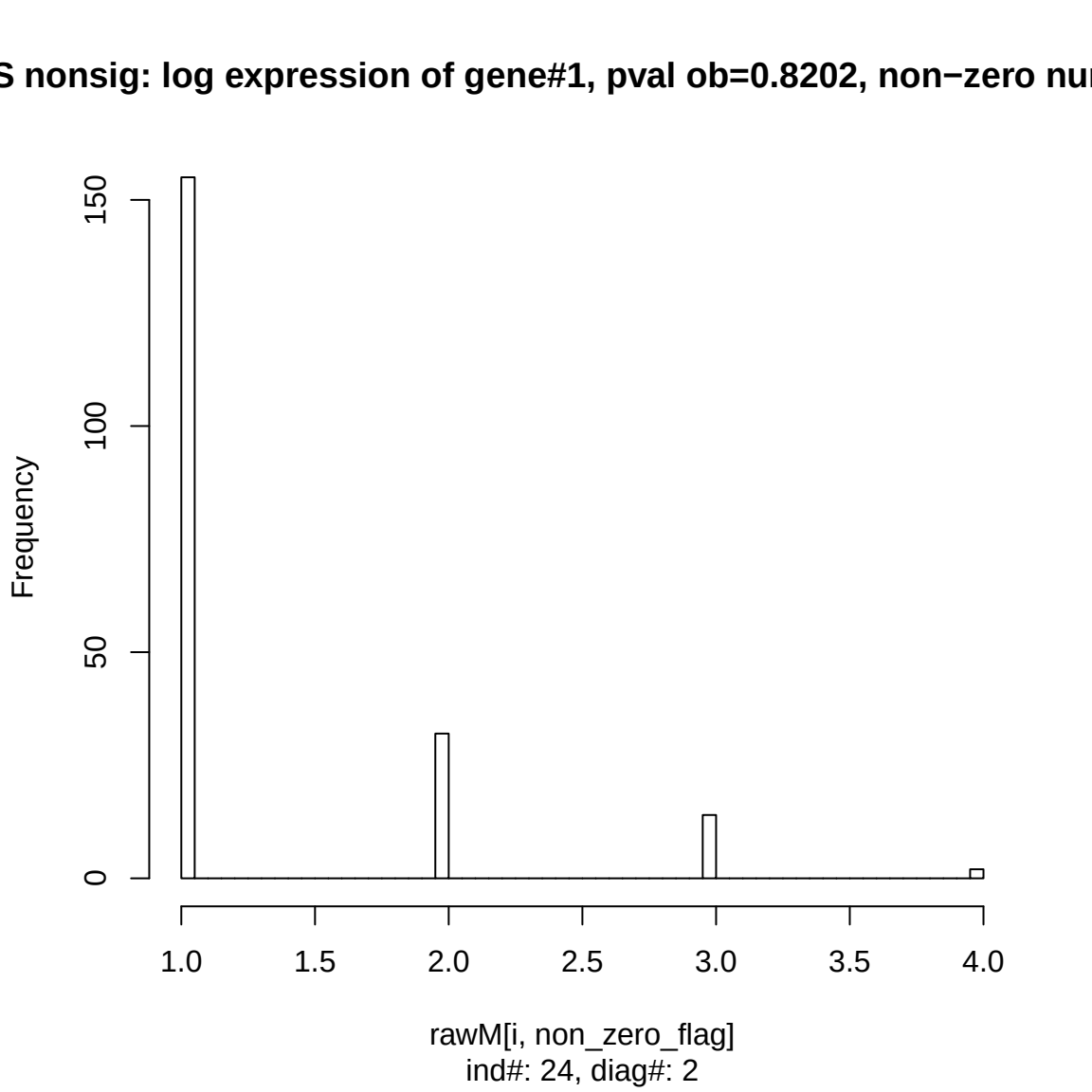

KSless sig: individual expression cell count of gene#48
Frequency
0
1
2
3
4
5
6
0
10
20
30
40
50
60
70
table(meta$individual[non_zero_flag])

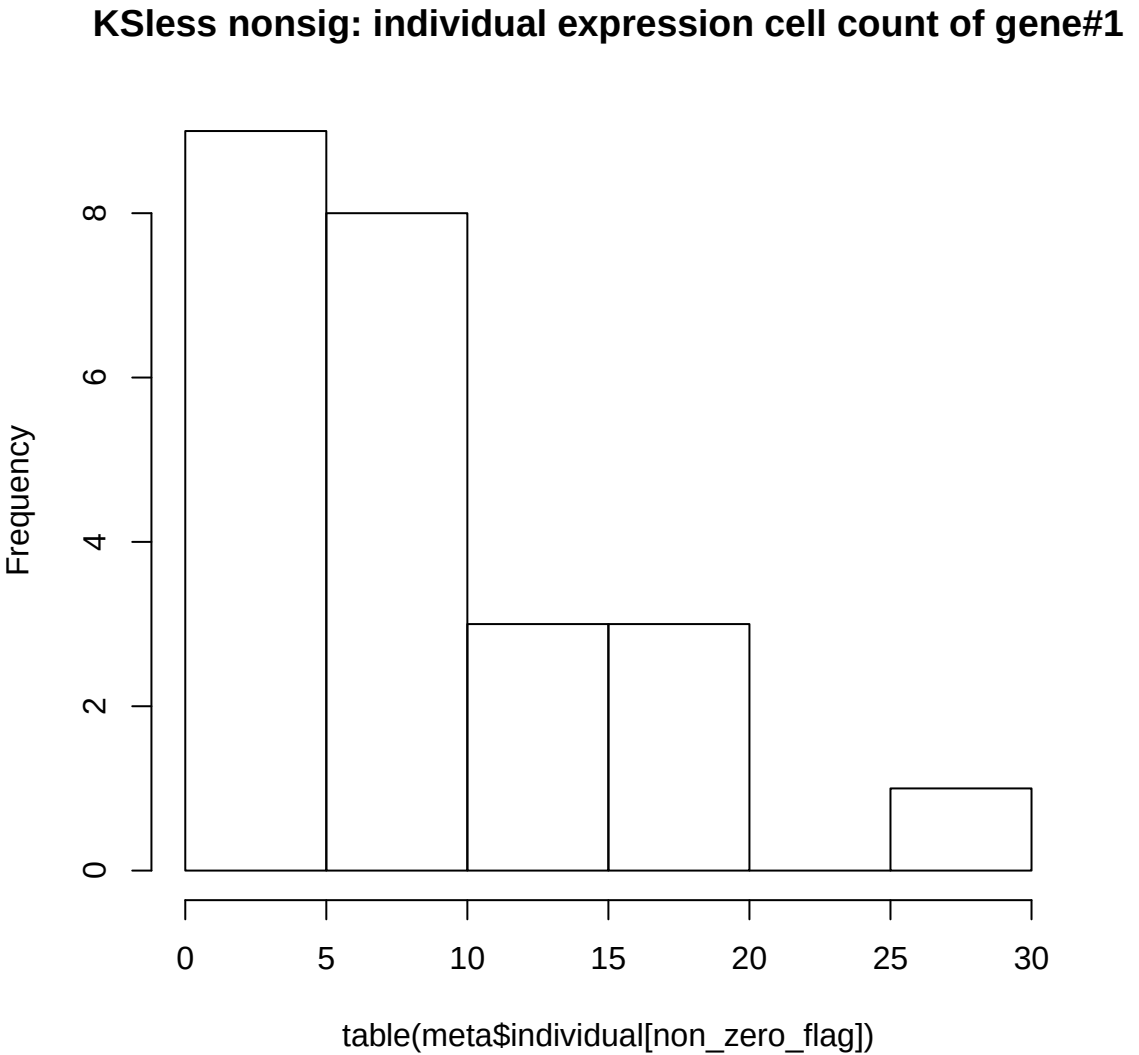

less sig: log expression of gene#49, pval ob=0.0201, non−zero nu
Frequency
0
20
40
60
80
1.0
1.5
2.0
2.5
3.0
rawM[i, non_zero_flag]
ind#: 20, diag#: 2

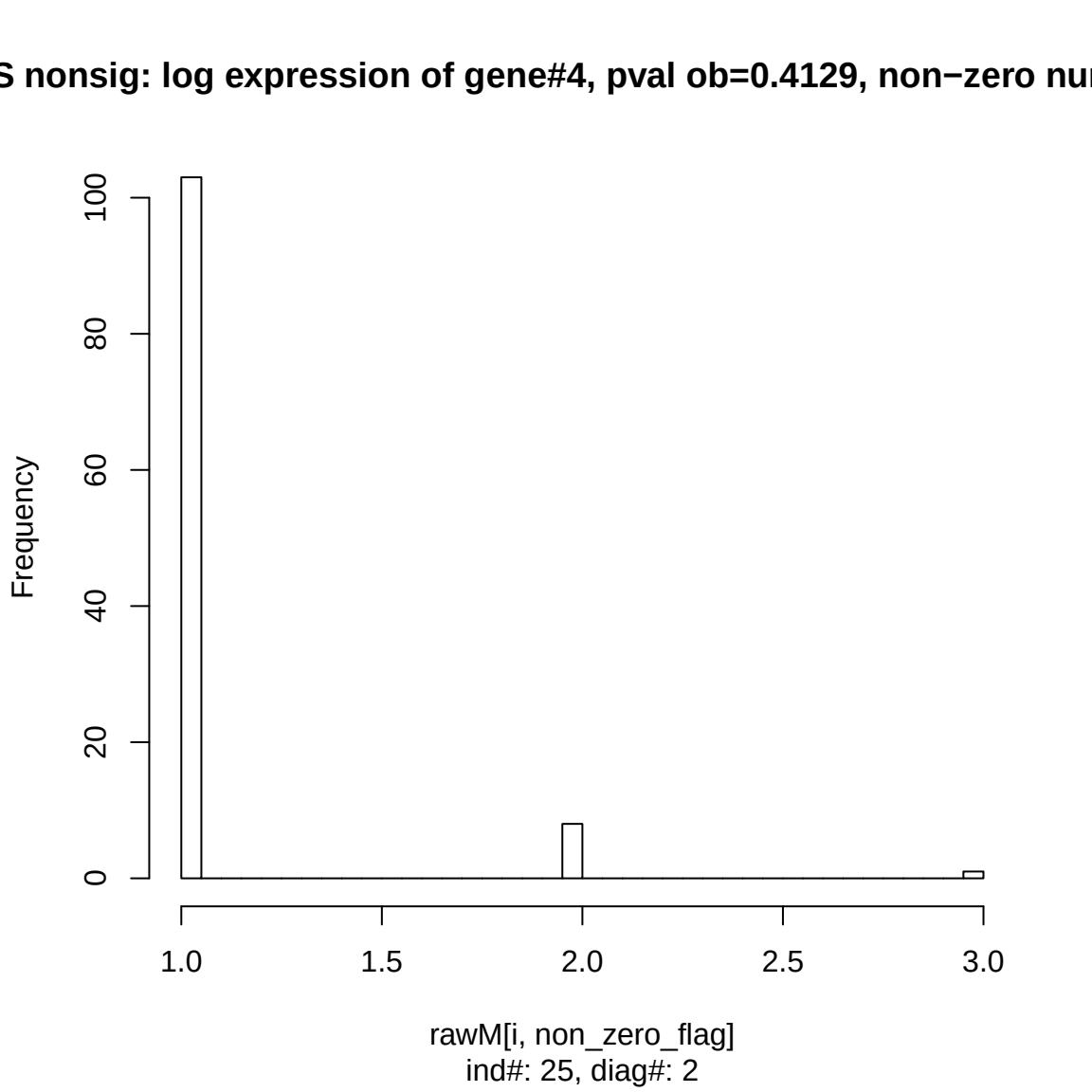

KSless sig: individual expression cell count of gene#49
Frequency
0
1
2
3
4
5
6
0
5
10
15
table(meta$individual[non_zero_flag])

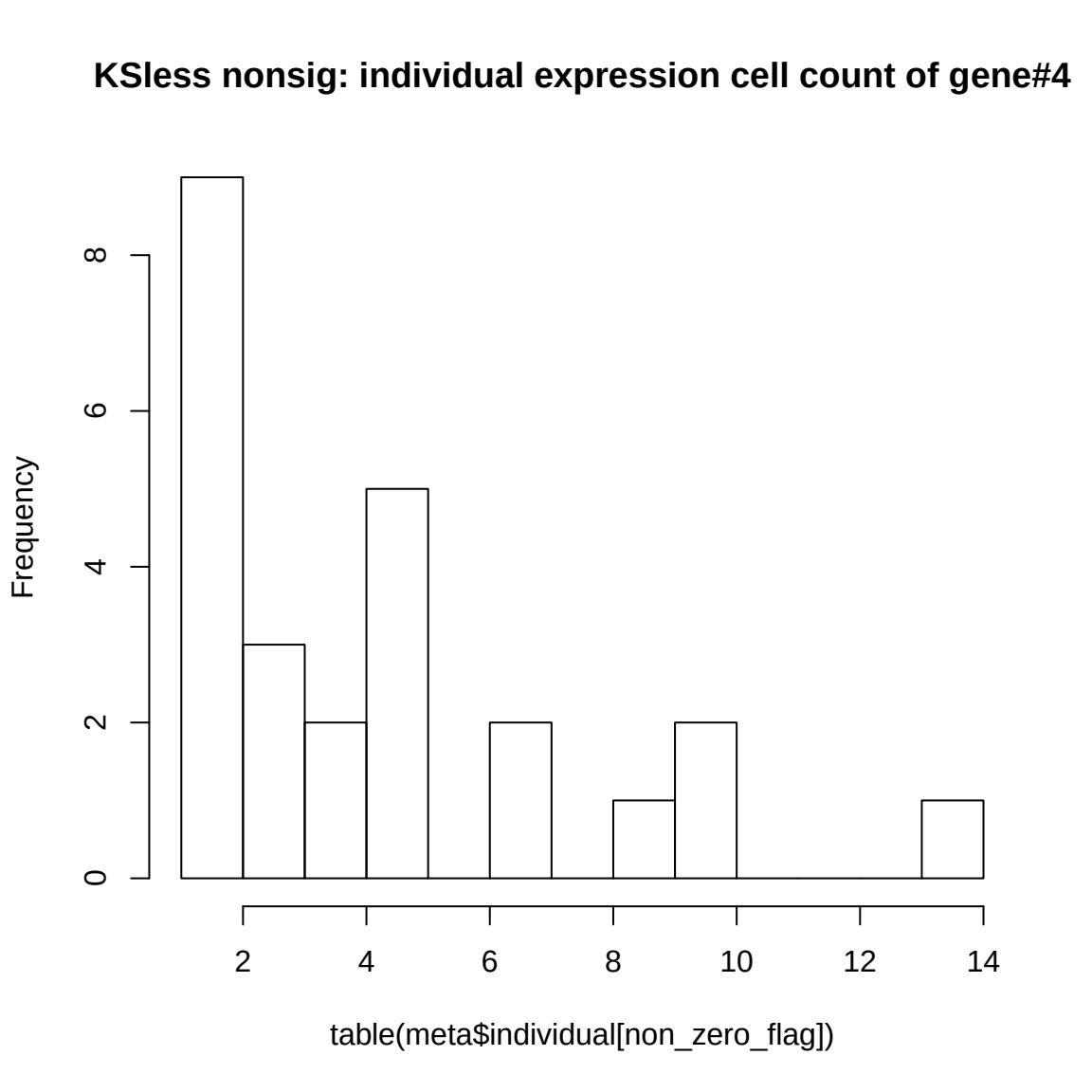

Sless sig: log expression of gene#56, pval ob=0.5181, non−zero nu
Frequency
0
10
20
30
40
50
60
1.0
1.2
1.4
1.6
1.8
2.0
rawM[i, non_zero_flag]
ind#: 21, diag#: 2

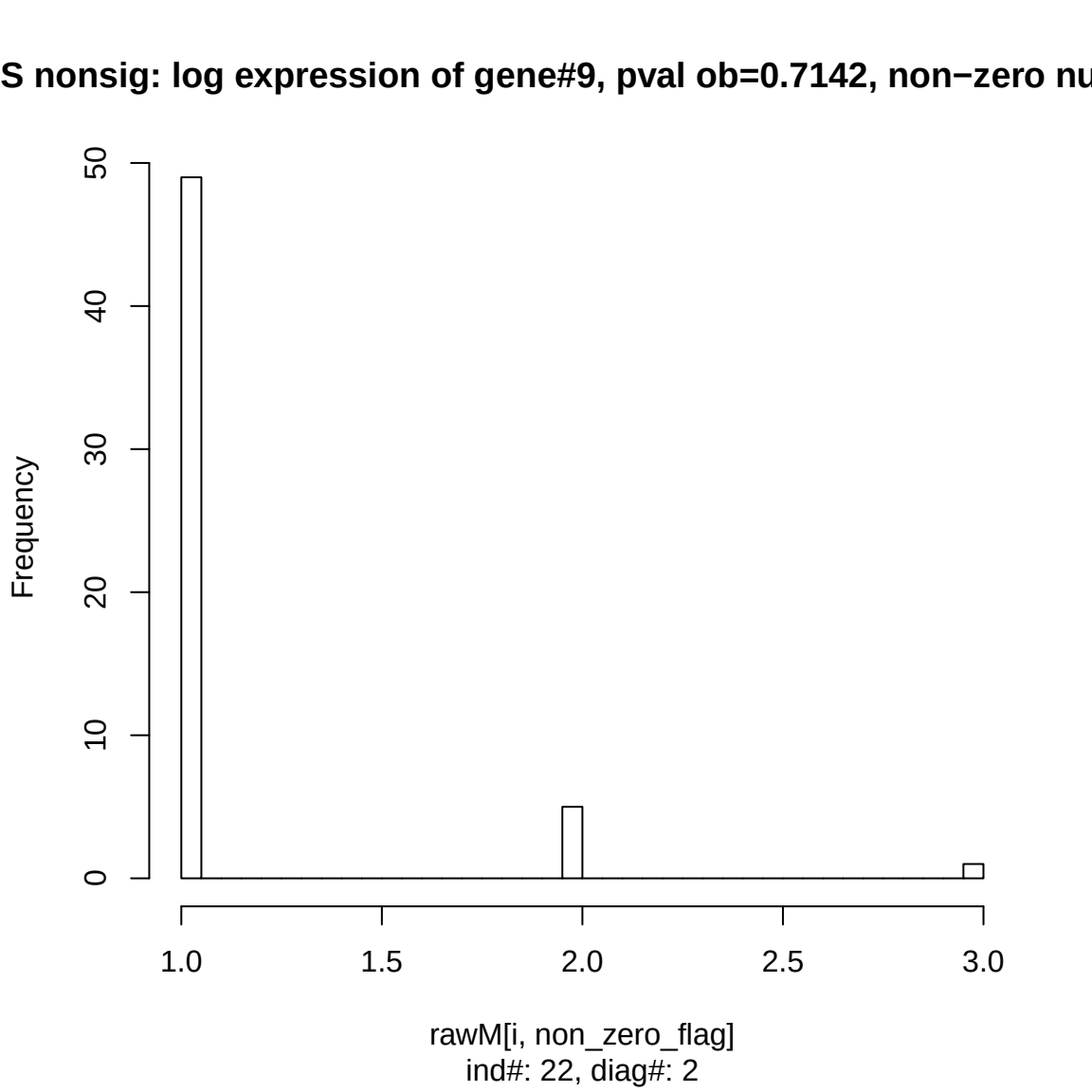

KSless sig: individual expression cell count of gene#56
Frequency
0
1
2
3
4
5
6
7
1
2
3
4
5
6
7
table(meta$individual[non_zero_flag])

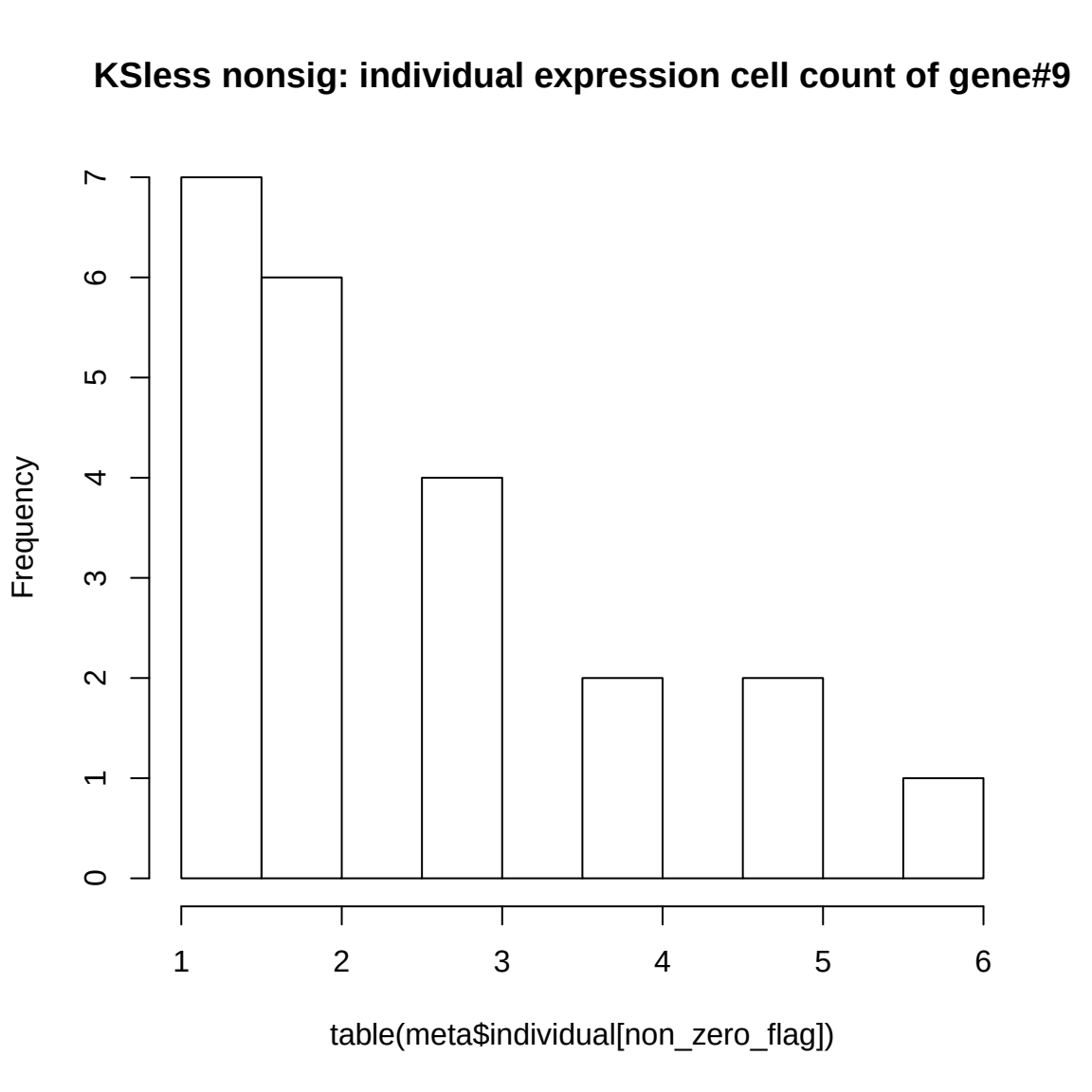

S nonsig: log expression of gene#1, pval ob=0.8202, non−zero nu
Frequency
0
50
100
150
1.0
1.5
2.0
2.5
3.0
3.5
4.0
rawM[i, non_zero_flag]
ind#: 24, diag#: 2

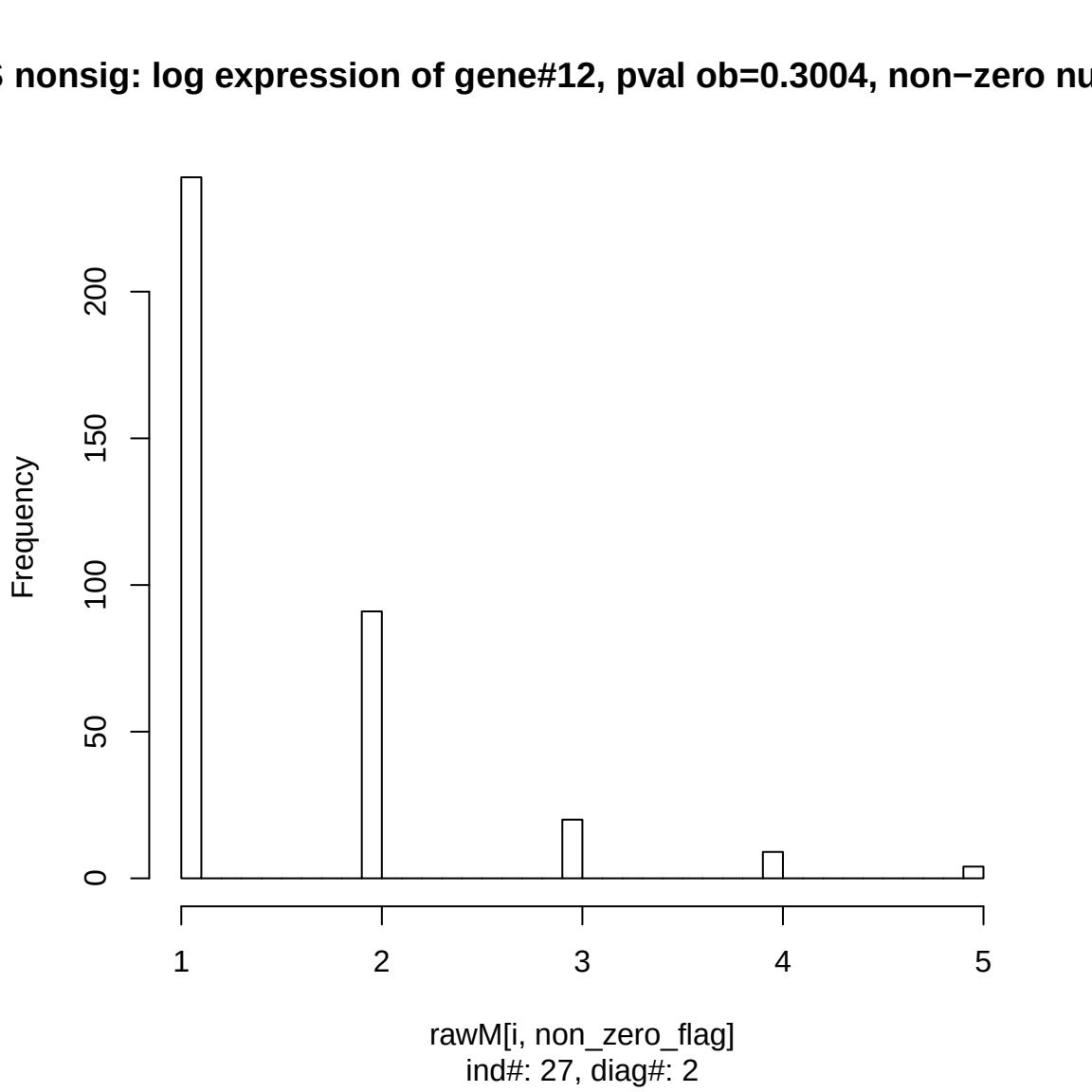

KSless nonsig: individual expression cell count of gene#1
Frequency
0
2
4
6
8
0
5
10
15
20
25
30
table(meta$individual[non_zero_flag])

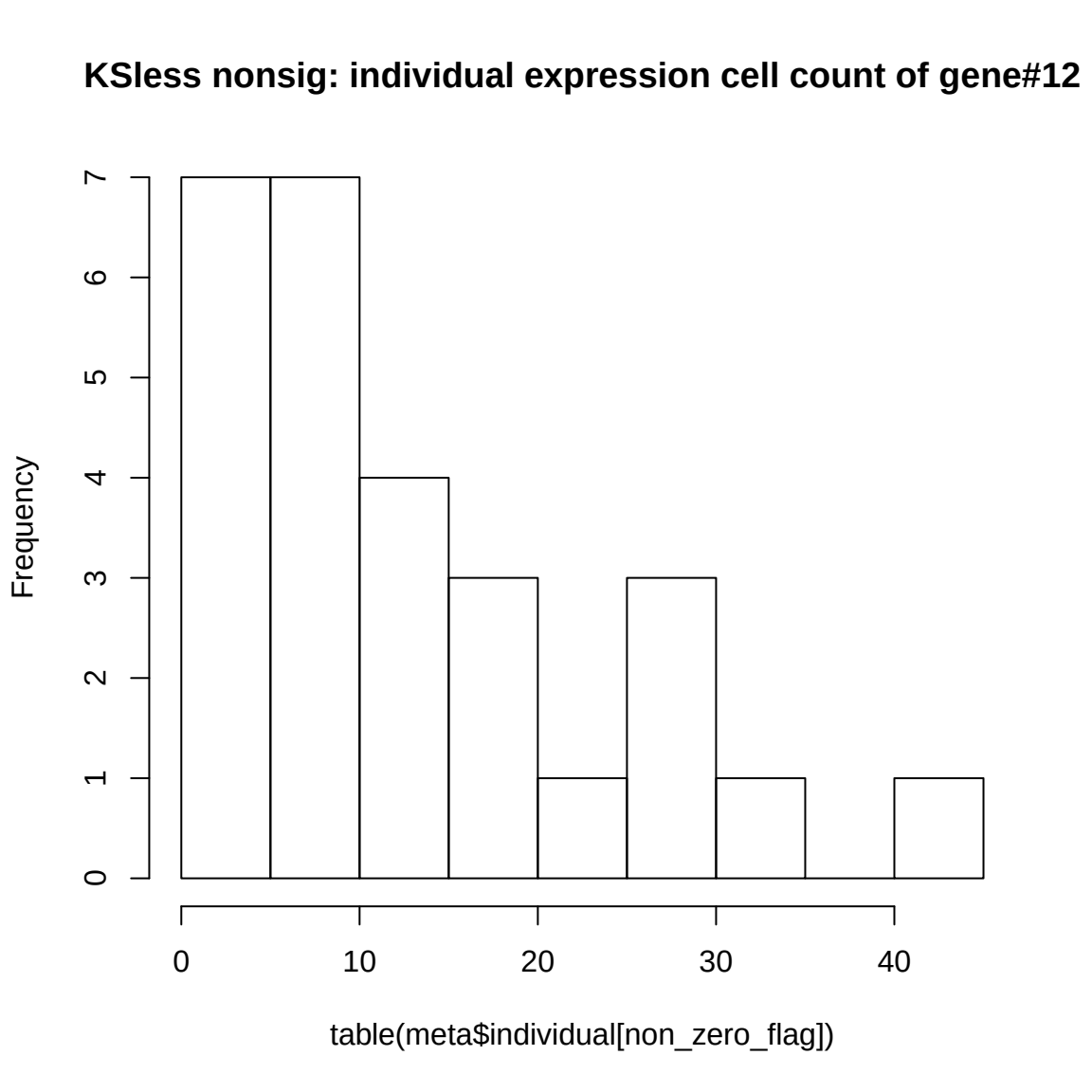

S nonsig: log expression of gene#4, pval ob=0.4129, non−zero nu
Frequency
0
20
40
60
80
100
1.0
1.5
2.0
2.5
3.0
rawM[i, non_zero_flag]
ind#: 25, diag#: 2

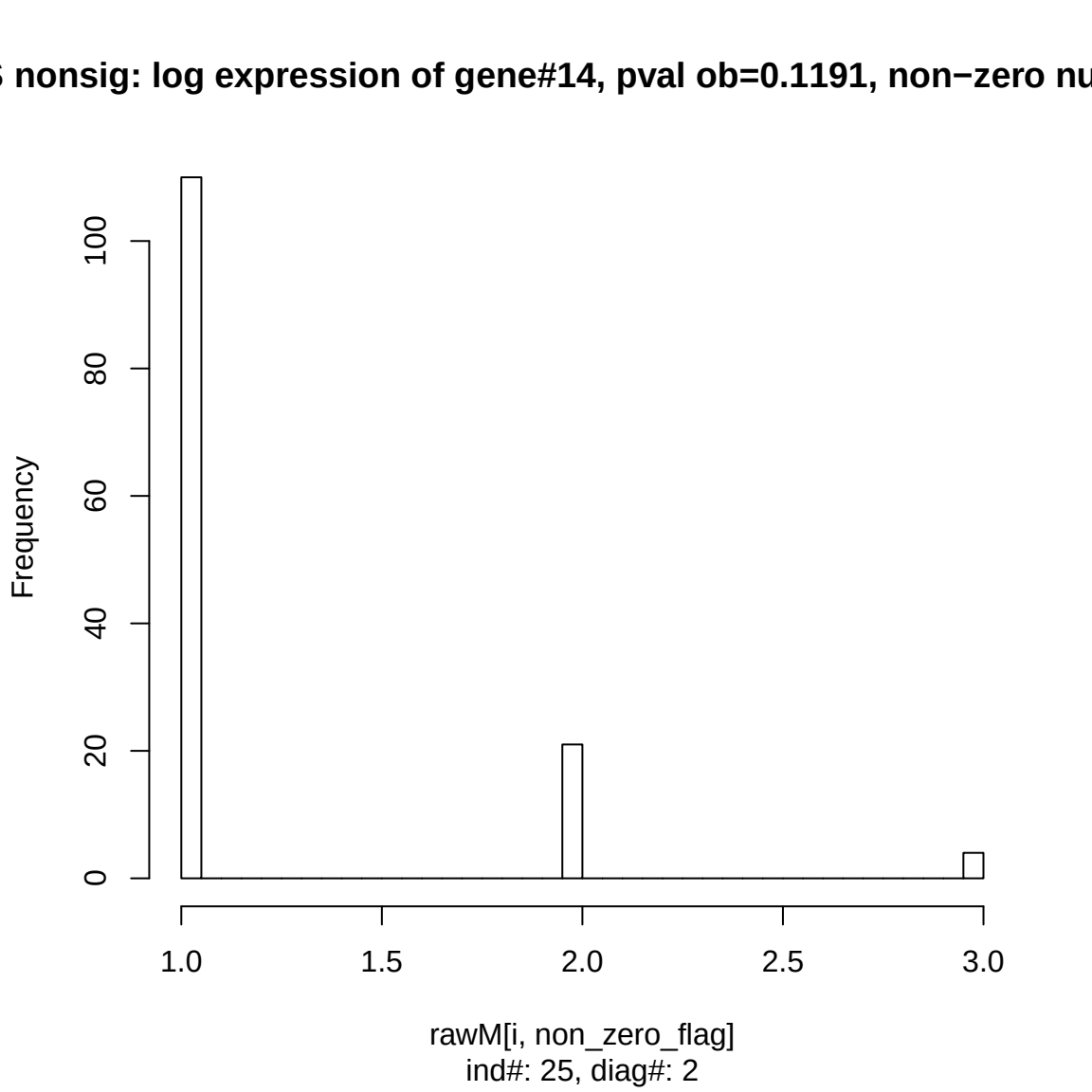

KSless nonsig: individual expression cell count of gene#4
Frequency
0
2
4
6
8
2
4
6
8
10
12
14
table(meta$individual[non_zero_flag])

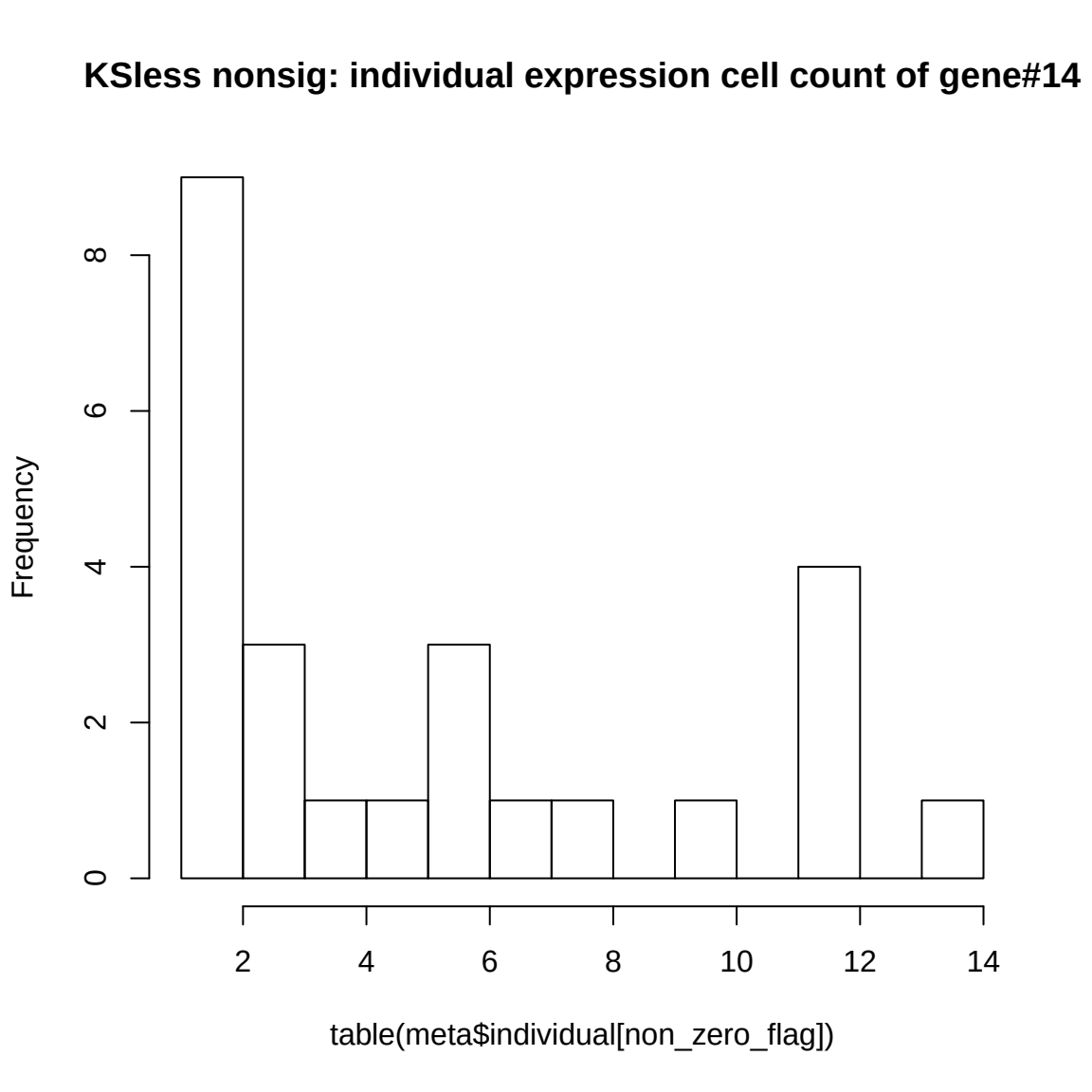

S nonsig: log expression of gene#9, pval ob=0.7142, non−zero nu
Frequency
0
10
20
30
40
50
1.0
1.5
2.0
2.5
3.0
rawM[i, non_zero_flag]
ind#: 22, diag#: 2

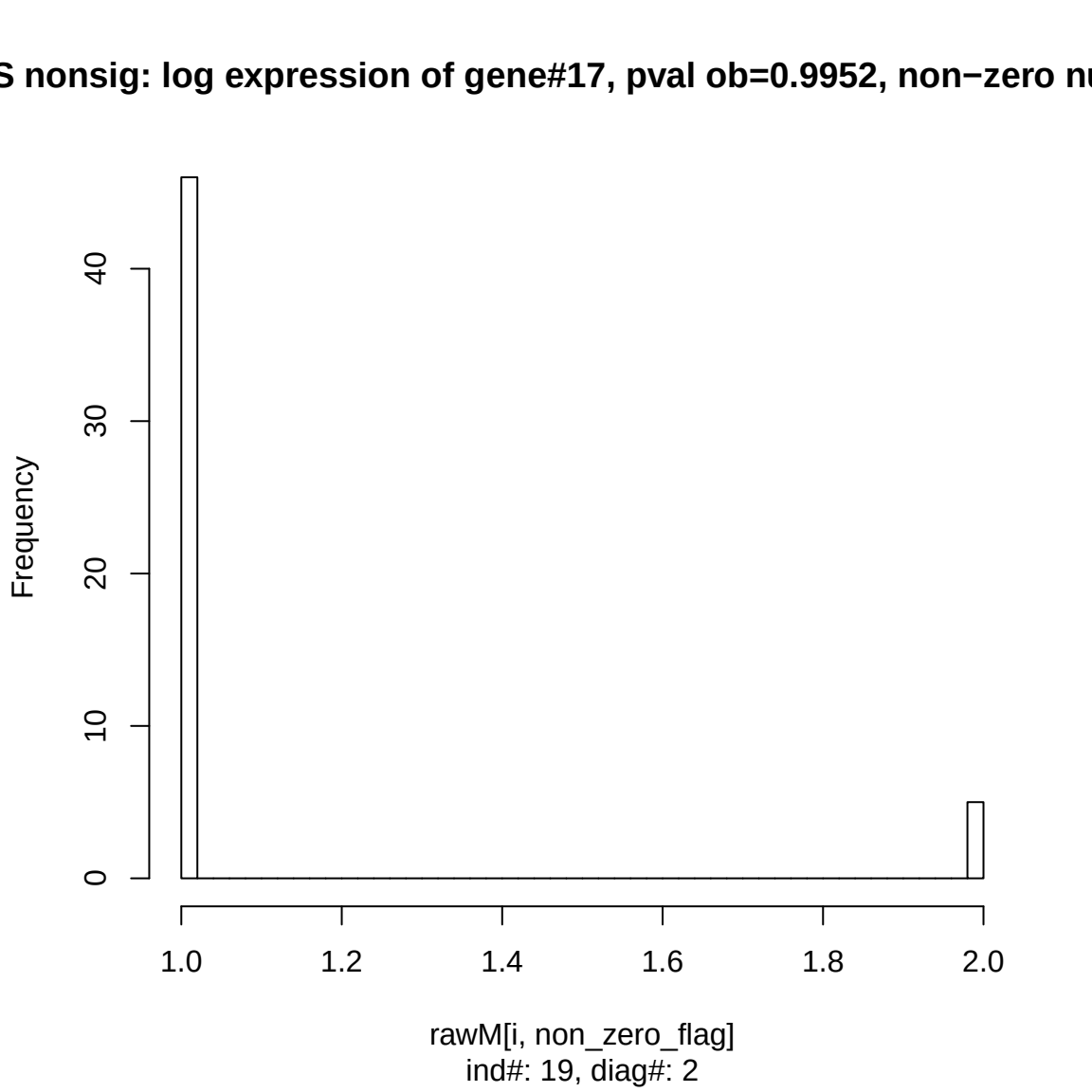

KSless nonsig: individual expression cell count of gene#9
Frequency
0
1
2
3
4
5
6
7
1
2
3
4
5
6
table(meta$individual[non_zero_flag])

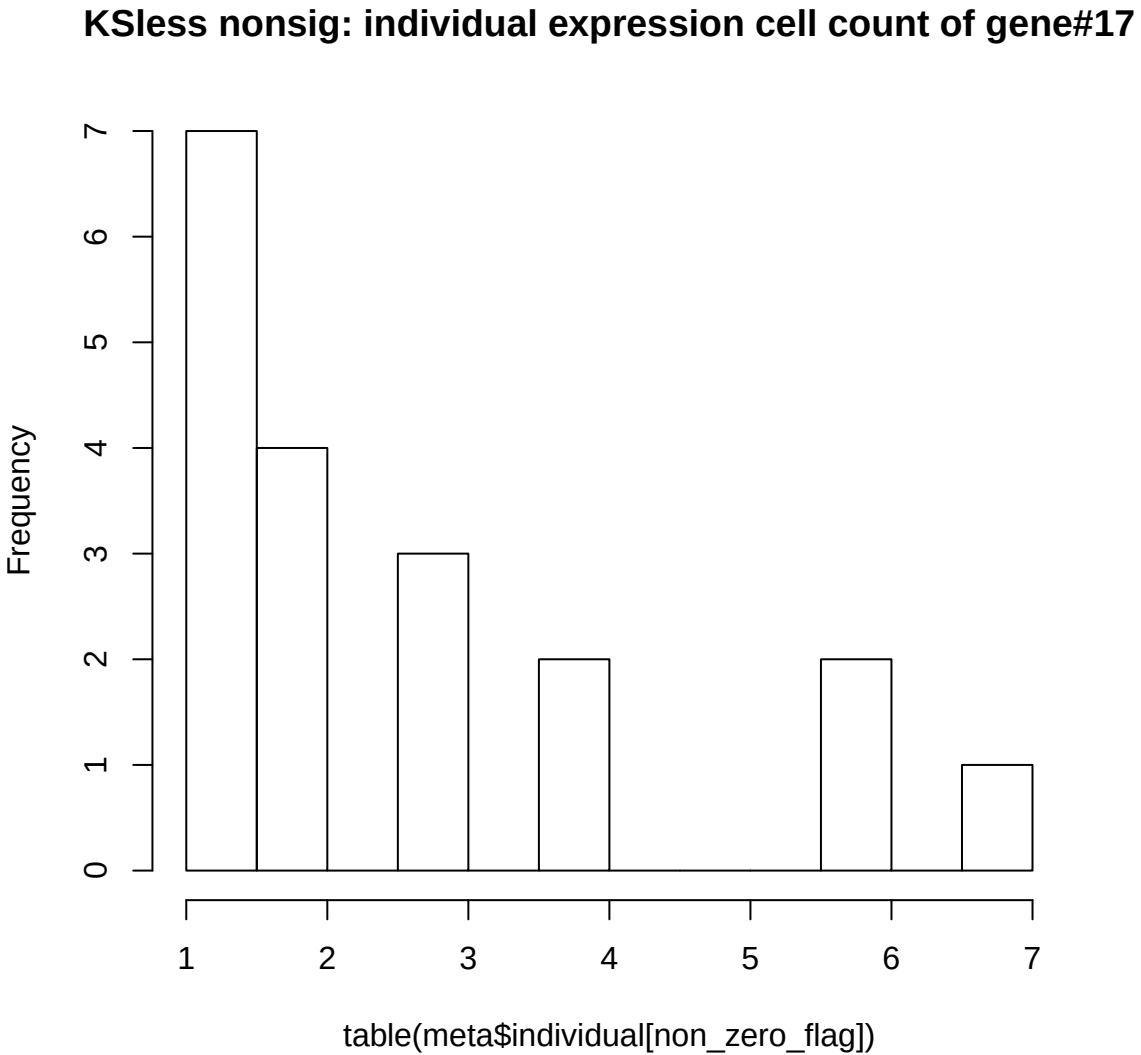

nonsig: log expression of gene#12, pval ob=0.3004, non−zero nu
Frequency
0
50
100
150
200
1
2
3
4
5
rawM[i, non_zero_flag]
ind#: 27, diag#: 2

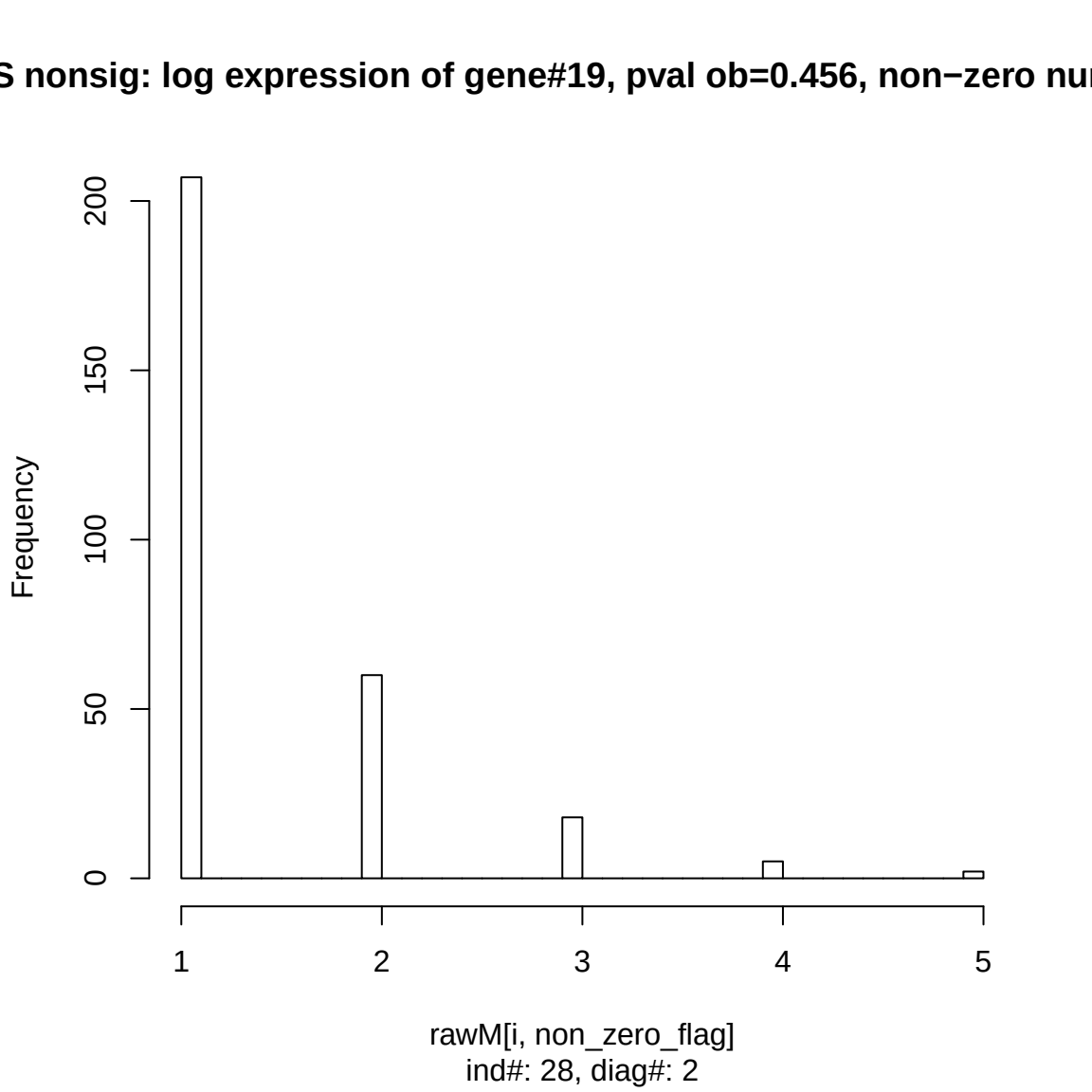

KSless nonsig: individual expression cell count of gene#12
Frequency
0
1
2
3
4
5
6
7
0
10
20
30
40
table(meta$individual[non_zero_flag])

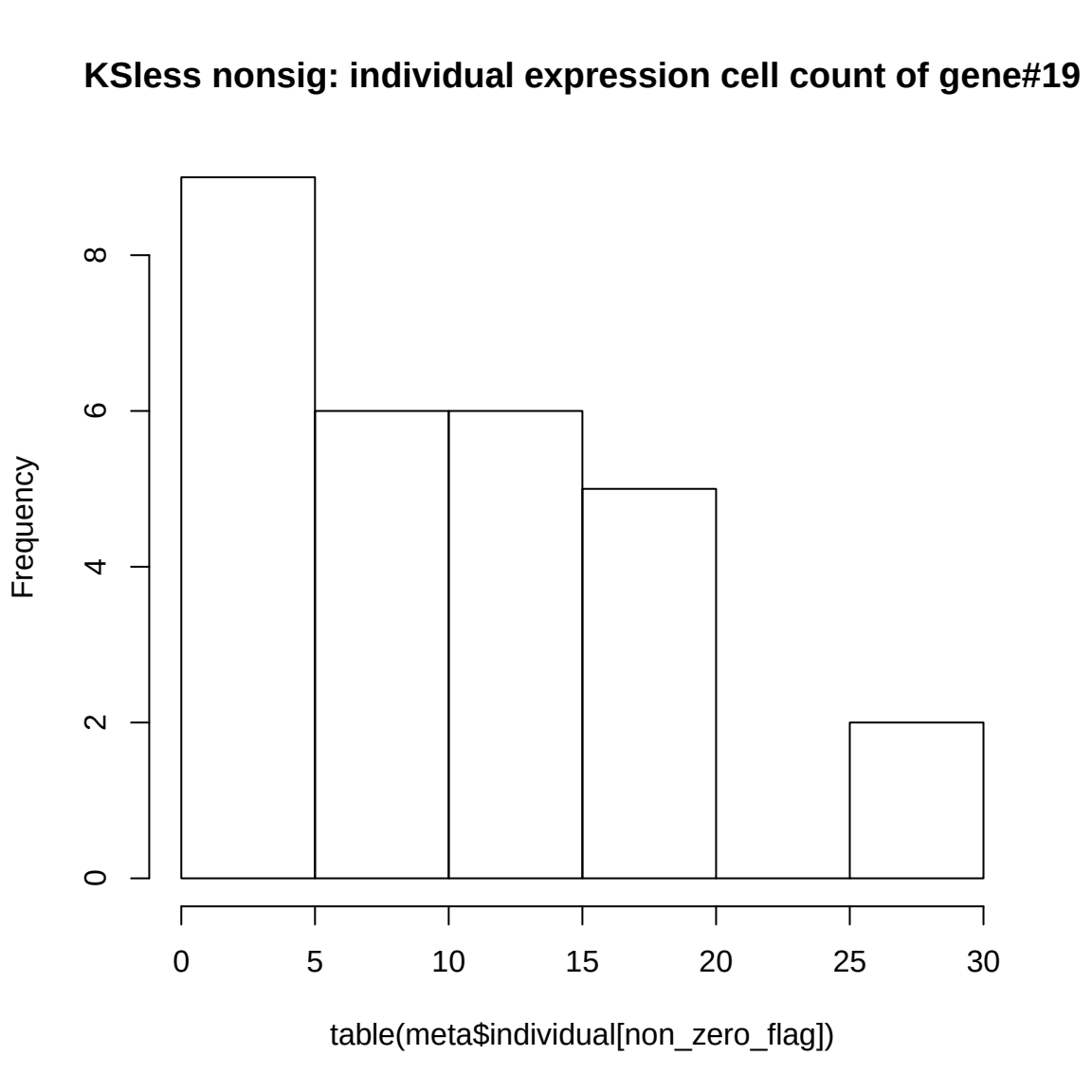

nonsig: log expression of gene#14, pval ob=0.1191, non−zero nu
Frequency
0
20
40
60
80
100
1.0
1.5
2.0
2.5
3.0
rawM[i, non_zero_flag]
ind#: 25, diag#: 2

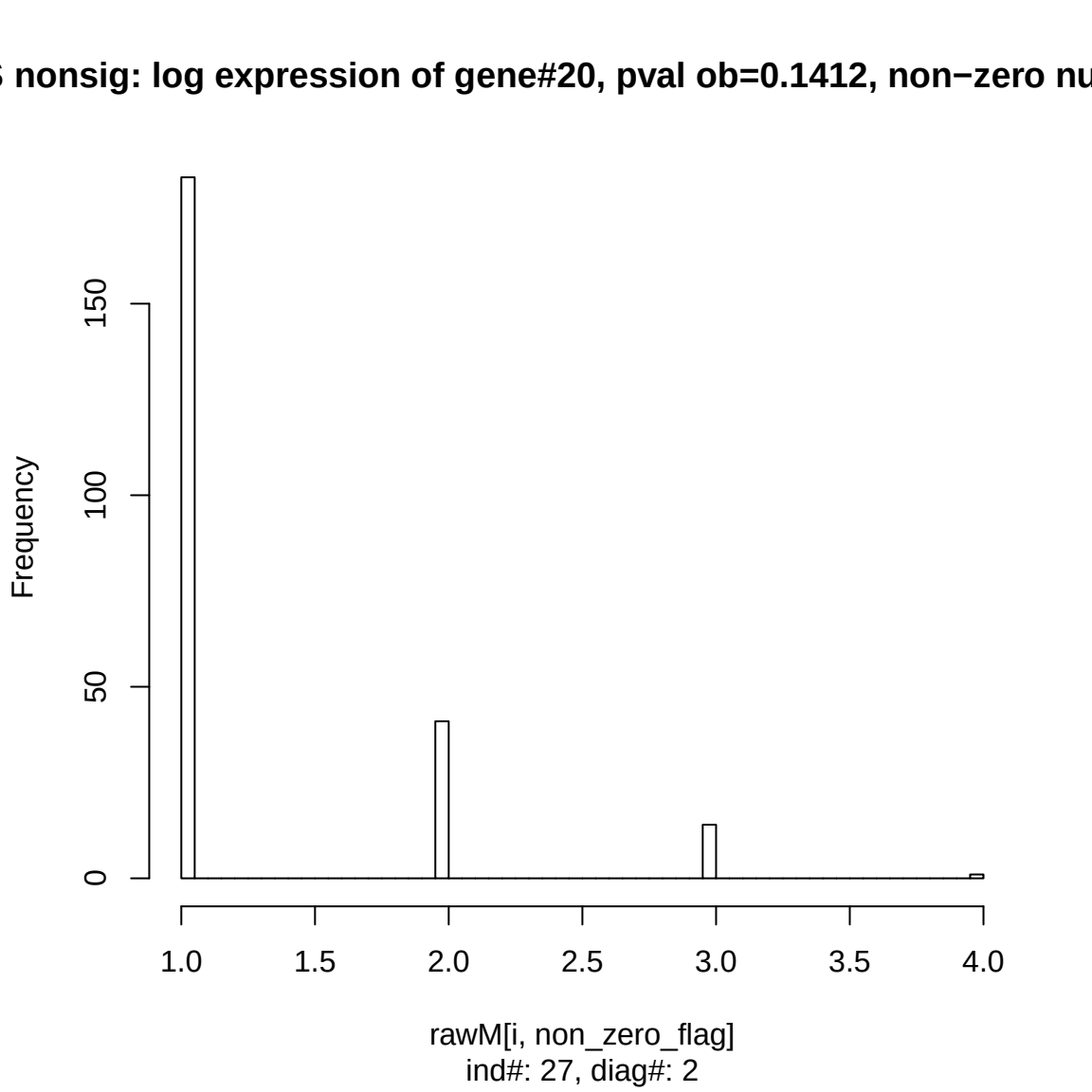

KSless nonsig: individual expression cell count of gene#14
Frequency
0
2
4
6
8
2
4
6
8
10
12
14
table(meta$individual[non_zero_flag])

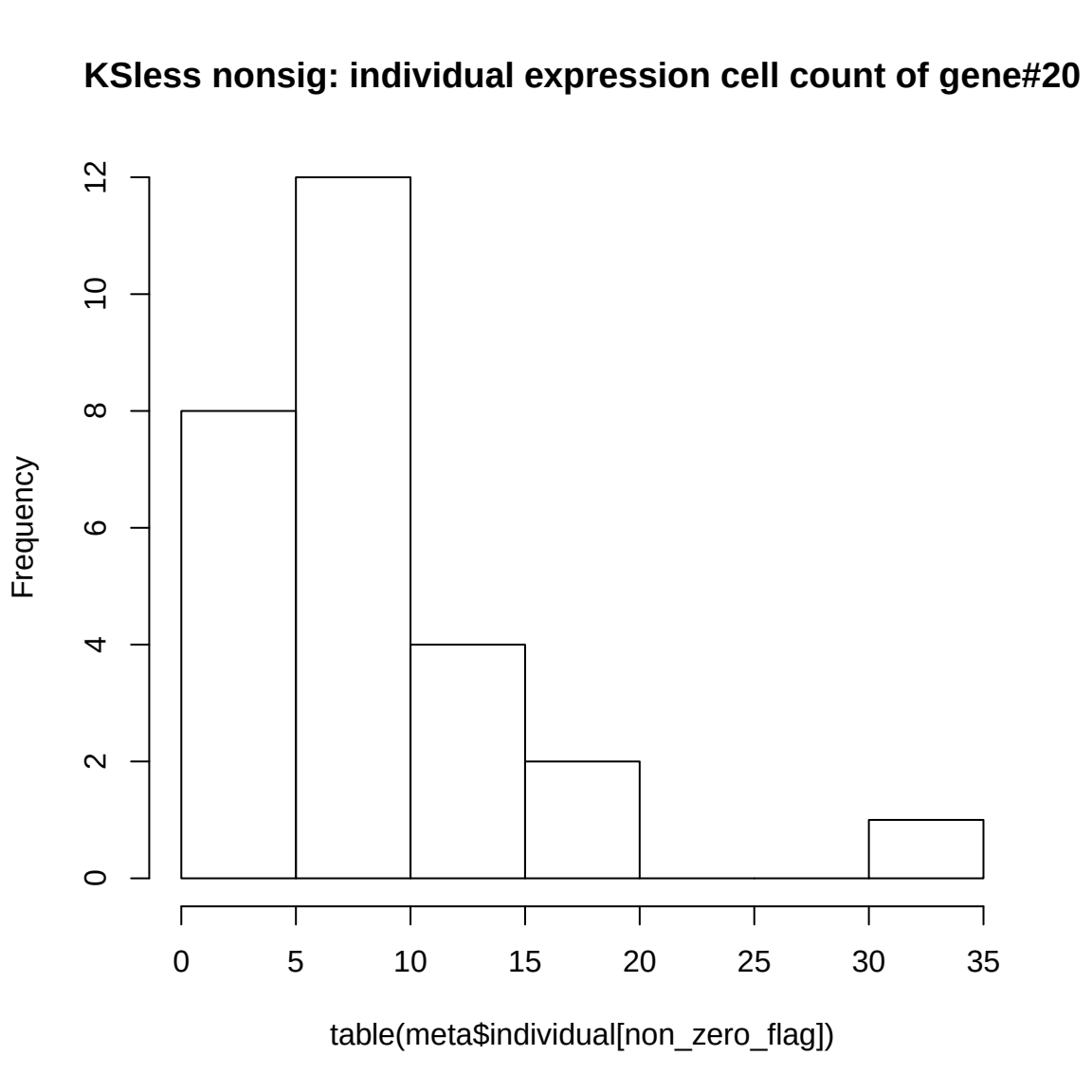

S nonsig: log expression of gene#17, pval ob=0.9952, non−zero nu
Frequency
0
10
20
30
40
1.0
1.2
1.4
1.6
1.8
2.0
rawM[i, non_zero_flag]
ind#: 19, diag#: 2

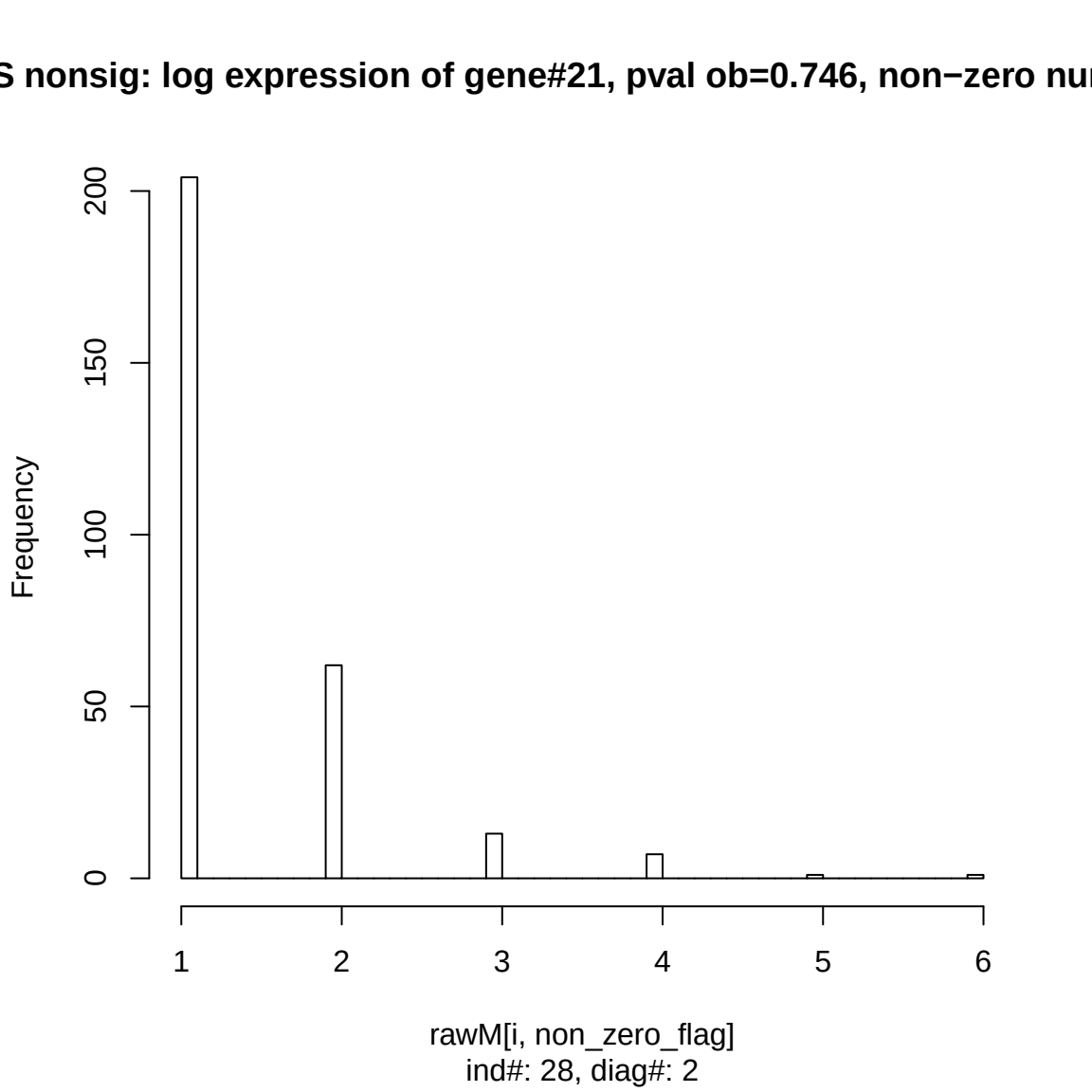

KSless nonsig: individual expression cell count of gene#17
Frequency
0
1
2
3
4
5
6
7
1
2
3
4
5
6
7
table(meta$individual[non_zero_flag])

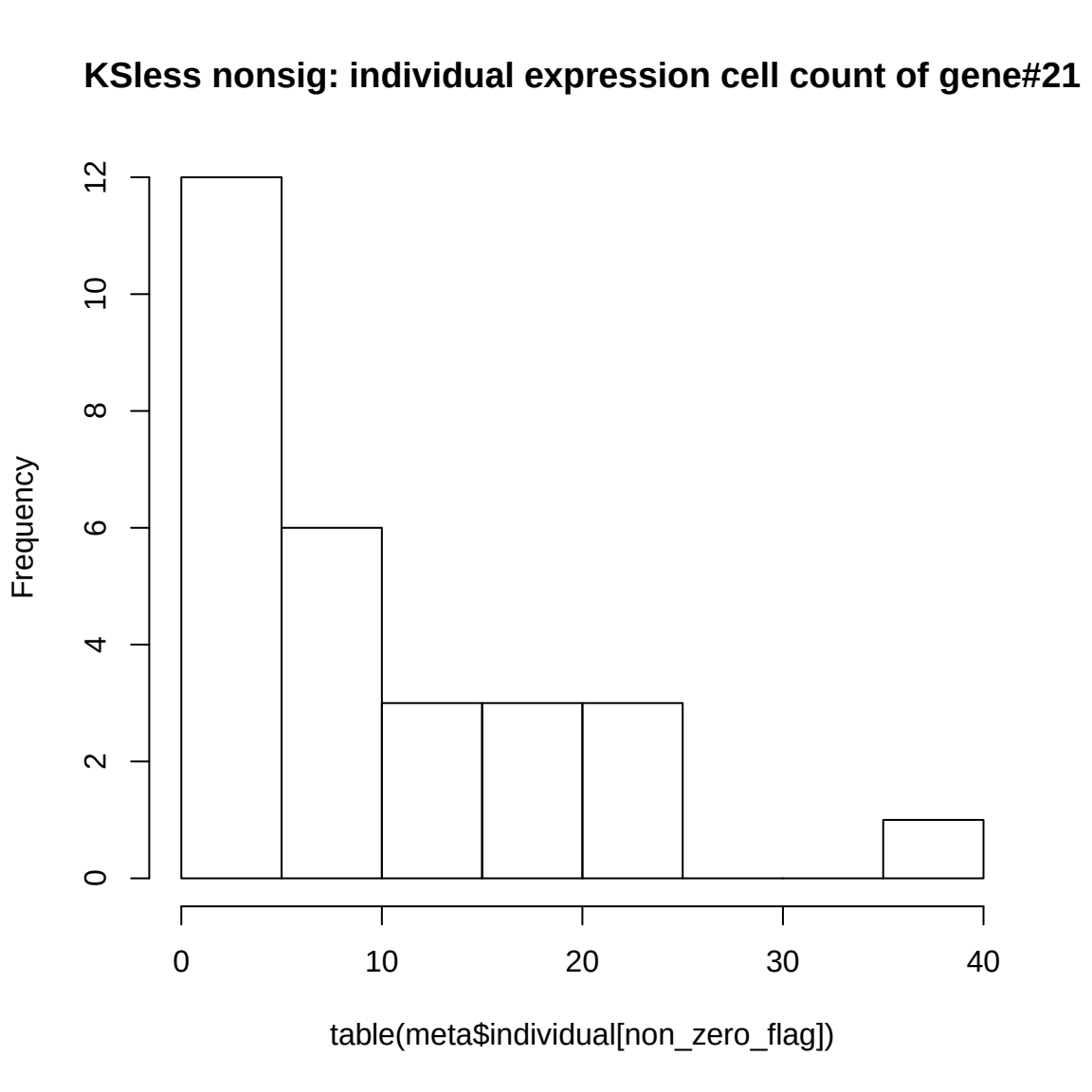

S nonsig: log expression of gene#19, pval ob=0.456, non−zero nu
Frequency
0
50
100
150
200
1
2
3
4
5
rawM[i, non_zero_flag]
ind#: 28, diag#: 2

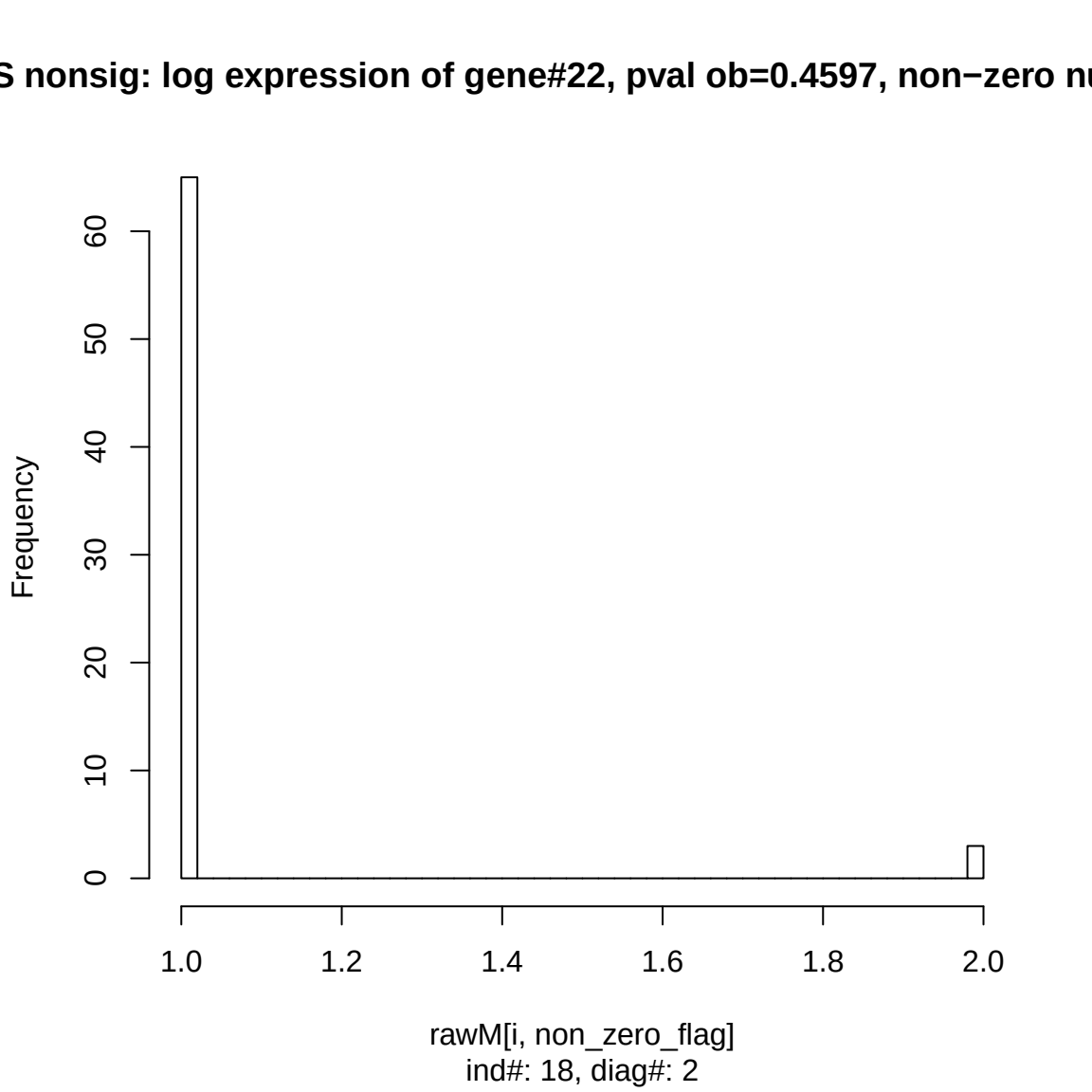

KSless nonsig: individual expression cell count of gene#19
Frequency
0
2
4
6
8
0
5
10
15
20
25
30
table(meta$individual[non_zero_flag])

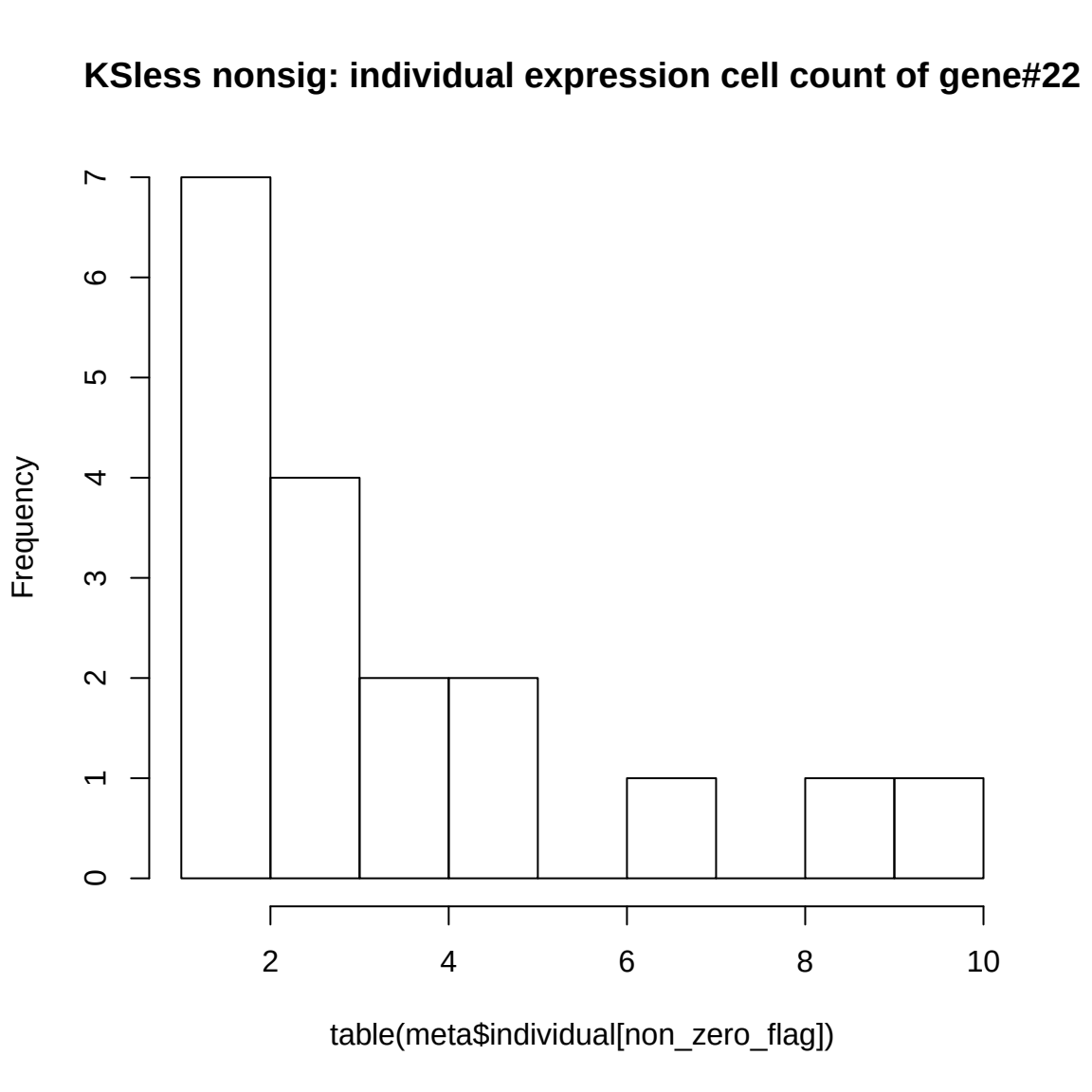

nonsig: log expression of gene#20, pval ob=0.1412, non−zero nu
Frequency
0
50
100
150
1.0
1.5
2.0
2.5
3.0
3.5
4.0
rawM[i, non_zero_flag]
ind#: 27, diag#: 2

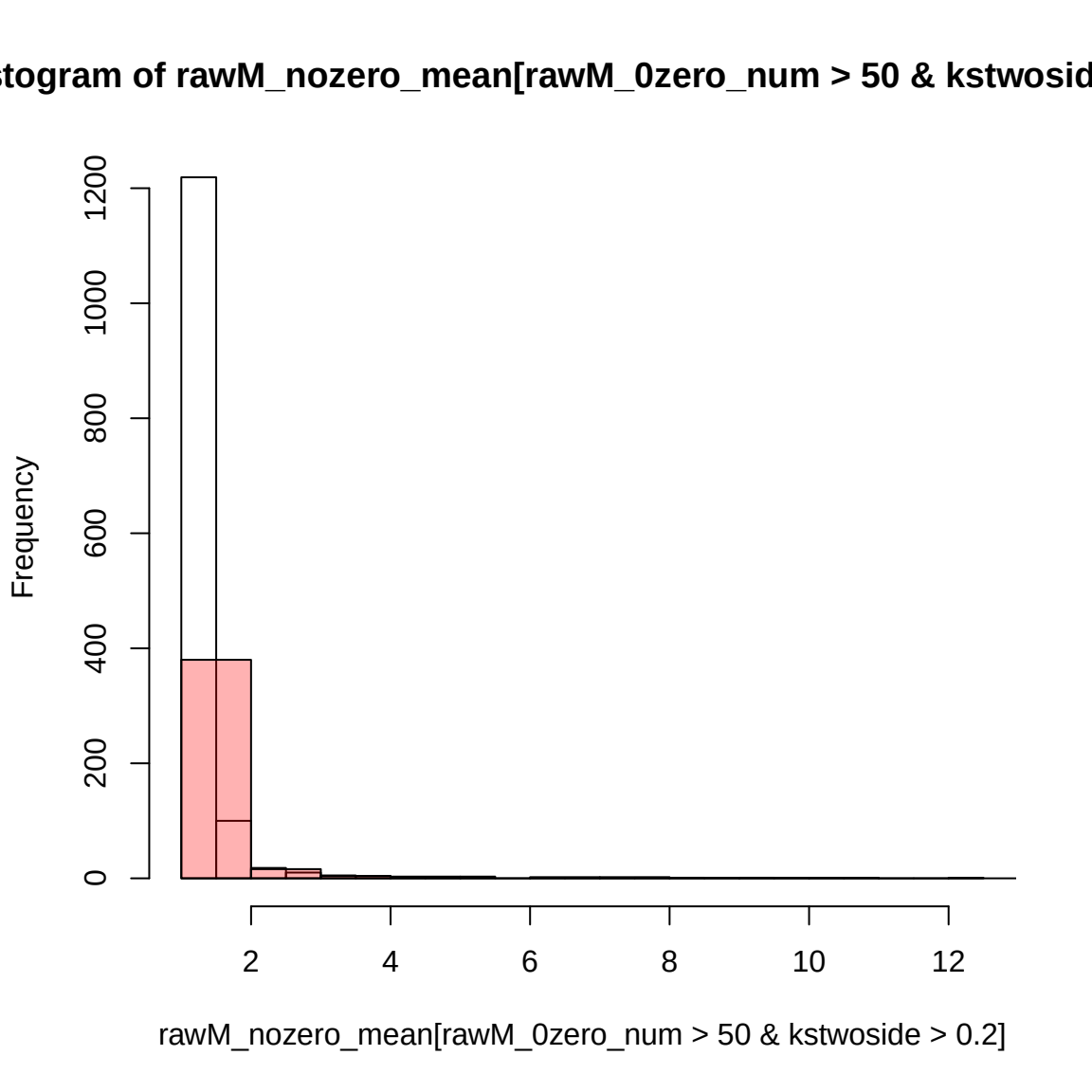

KSless nonsig: individual expression cell count of gene#20
Frequency
0
2
4
6
8
10
12
0
5
10
15
20
25
30
35
table(meta$individual[non_zero_flag])

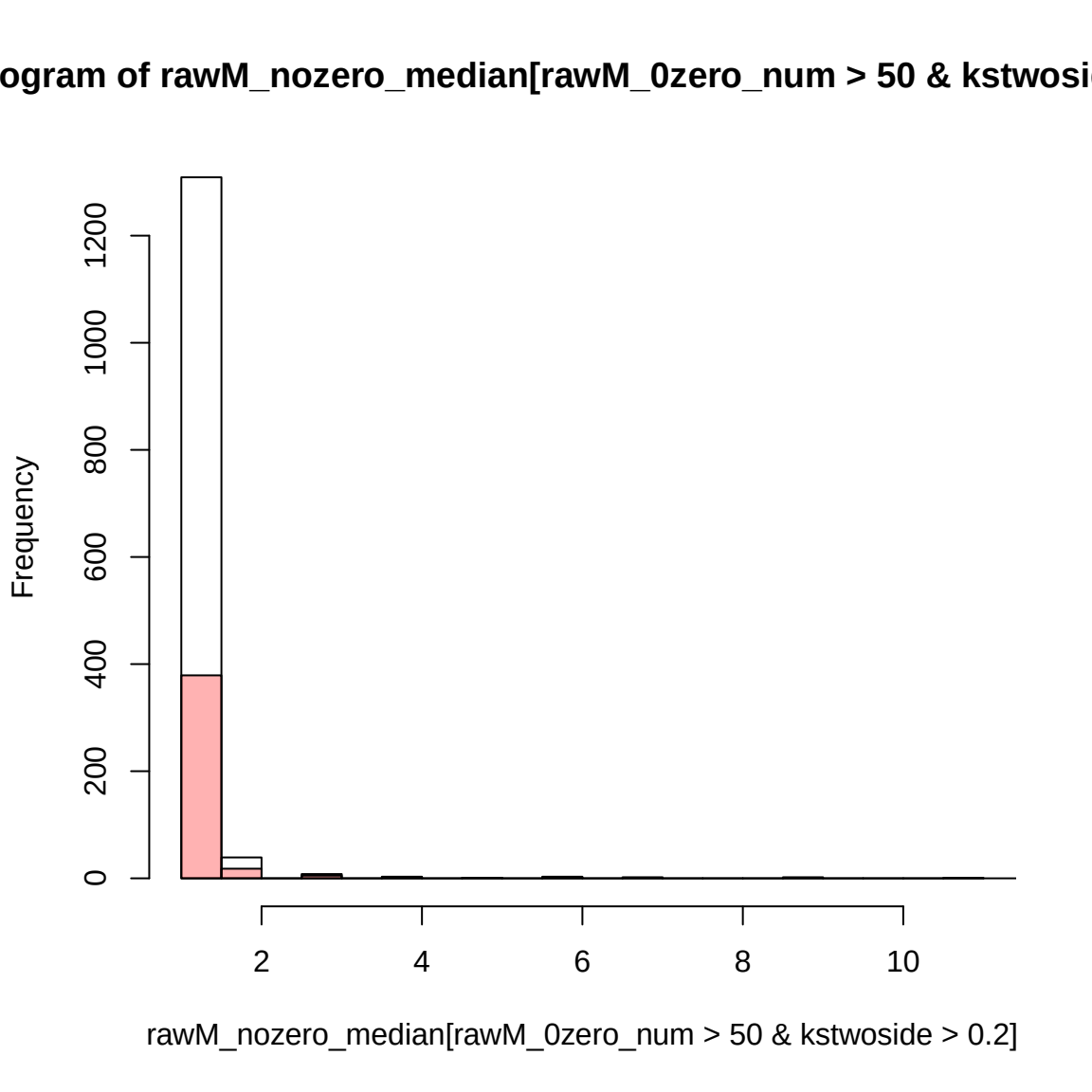

S nonsig: log expression of gene#21, pval ob=0.746, non−zero nu
Frequency
0
50
100
150
200
1
2
3
4
5
6
rawM[i, non_zero_flag]
ind#: 28, diag#: 2

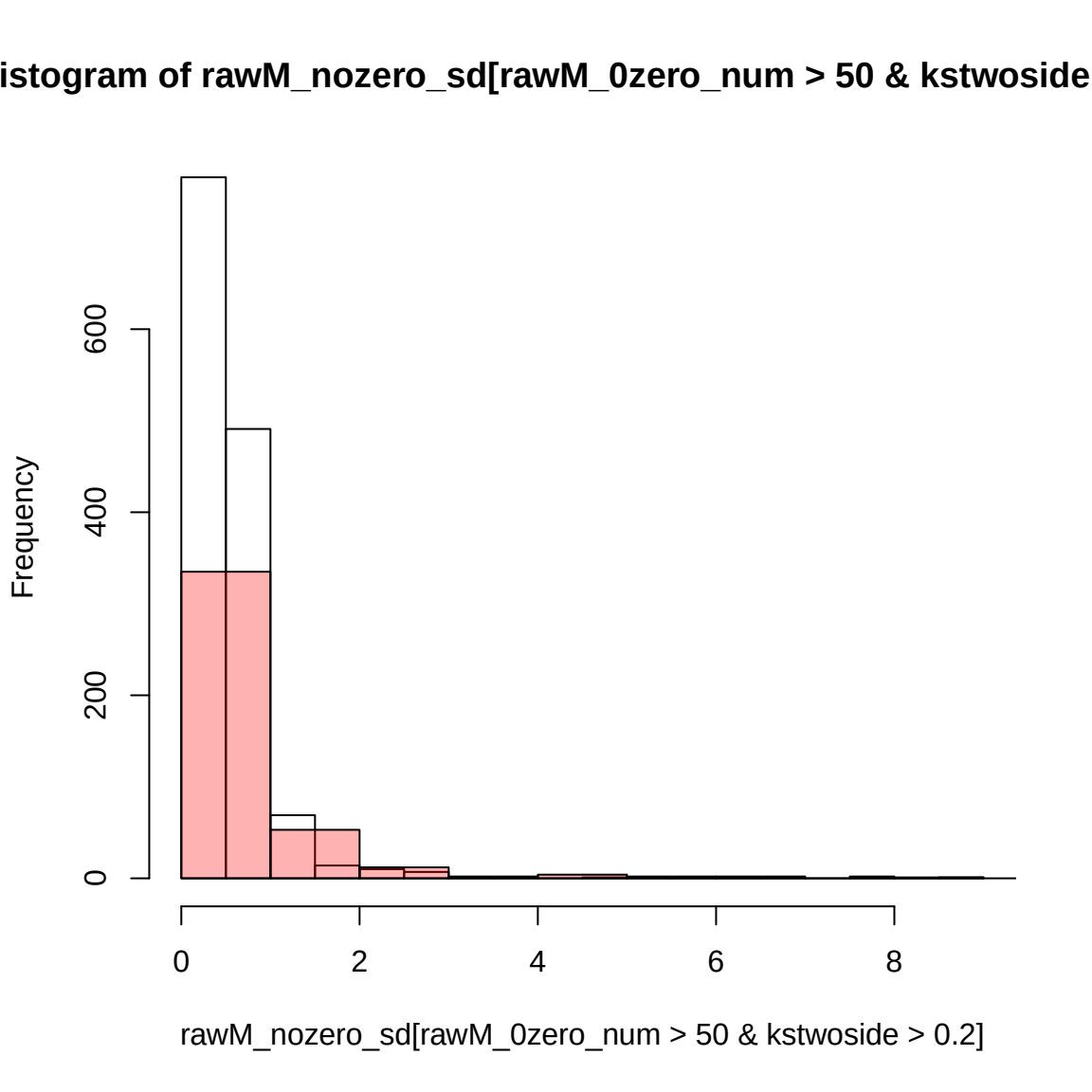

KSless nonsig: individual expression cell count of gene#21
Frequency
0
2
4
6
8
10
12
0
10
20
30
40
table(meta$individual[non_zero_flag])

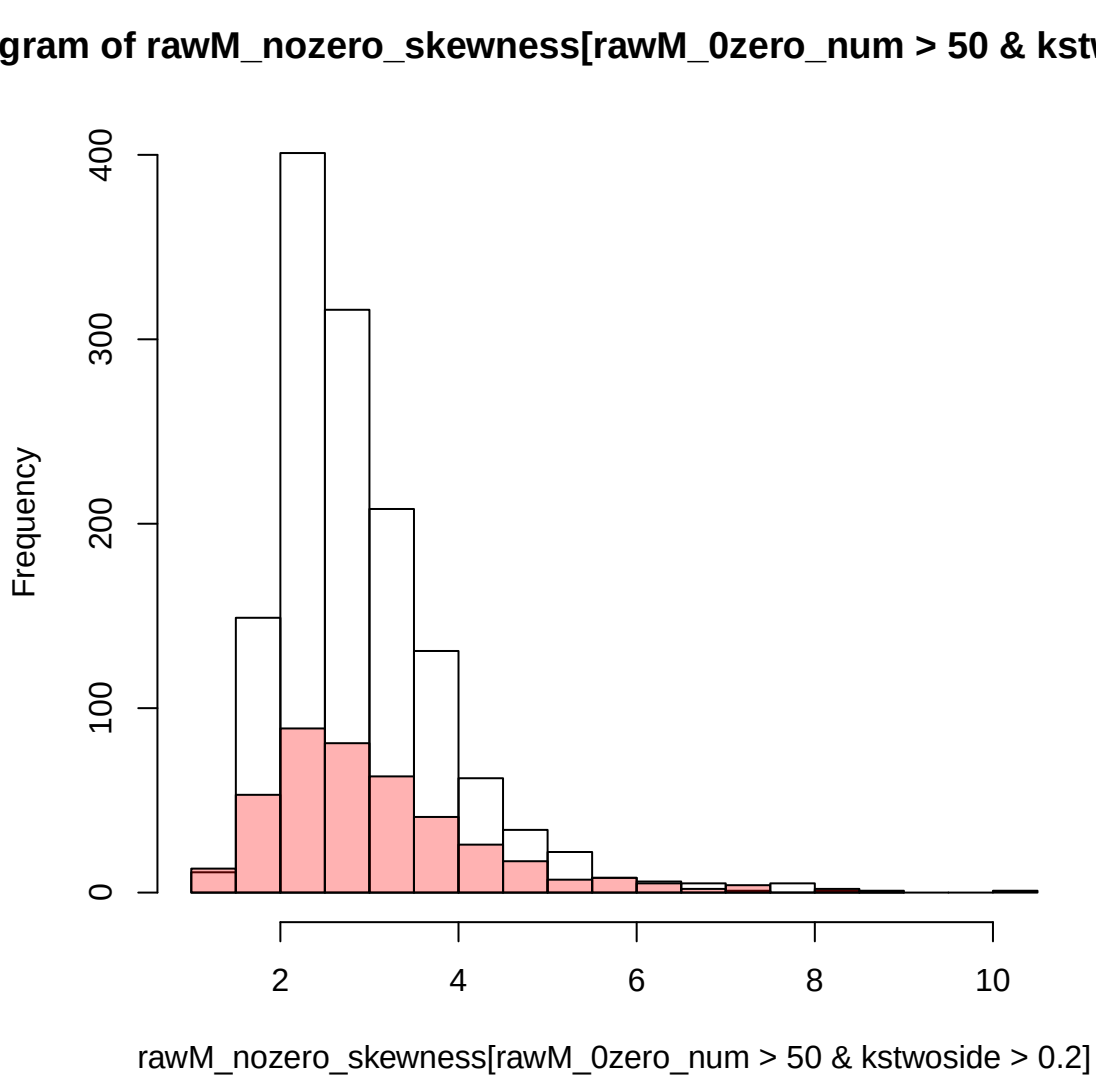

S nonsig: log expression of gene#22, pval ob=0.4597, non−zero nu
Frequency
0
10
20
30
40
50
60
1.0
1.2
1.4
1.6
1.8
2.0
rawM[i, non_zero_flag]
ind#: 18, diag#: 2

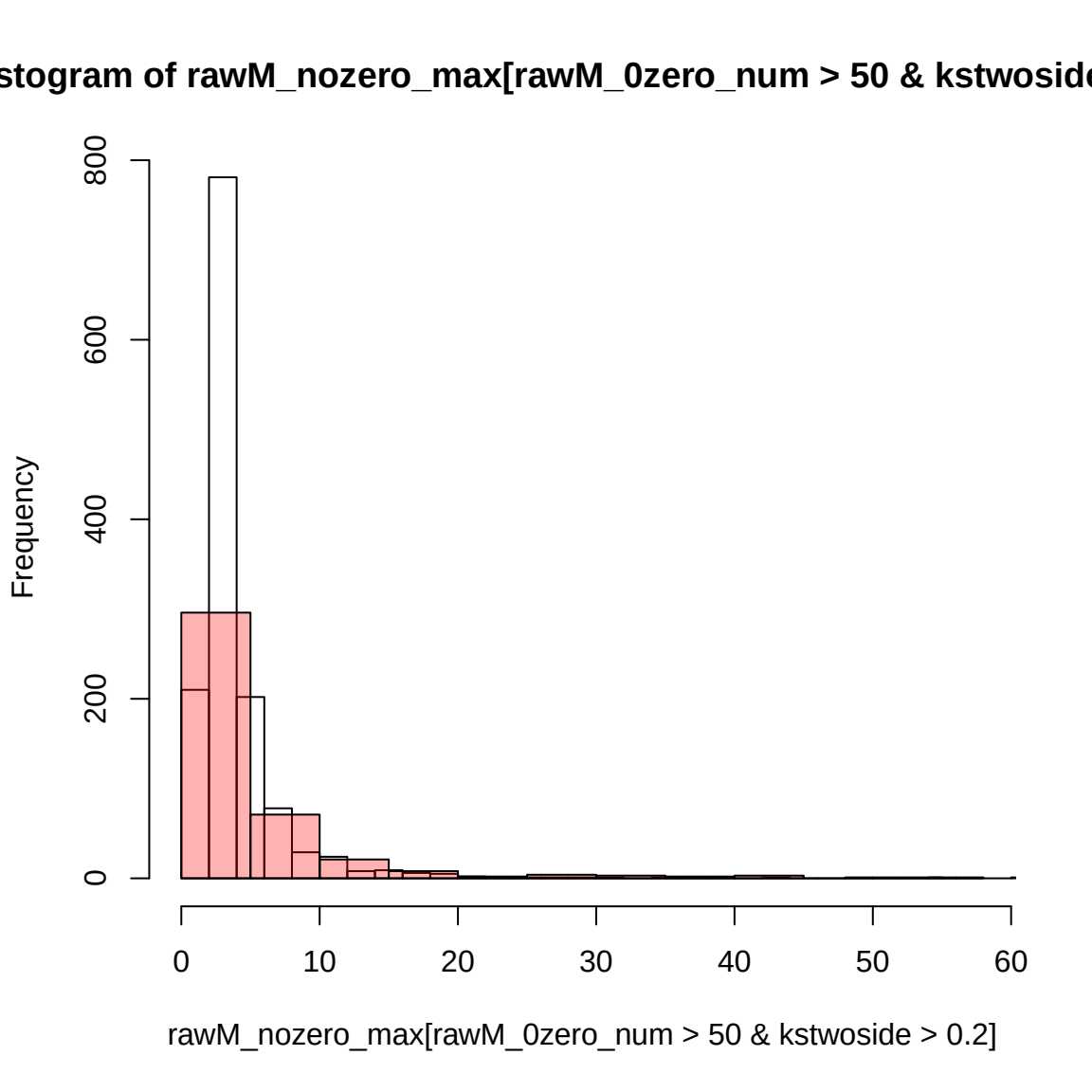

KSless nonsig: individual expression cell count of gene#22
Frequency
0
1
2
3
4
5
6
7
2
4
6
8
10
table(meta$individual[non_zero_flag])

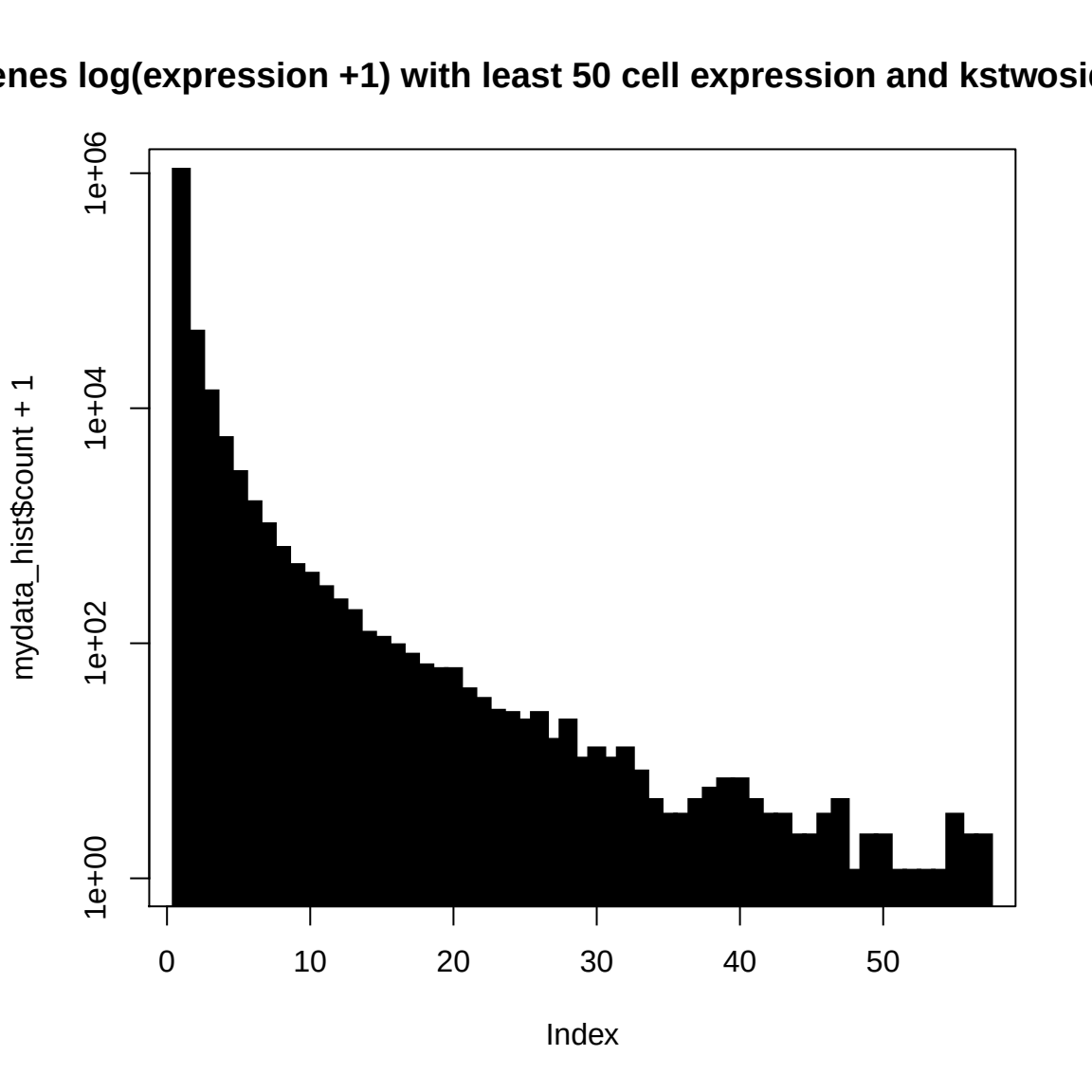

stogram of rawM_nozero_mean[rawM_0zero_num > 50 & kstwoside
Frequency
0
200
400
600
800
1000
1200
2
4
6
8
10
12
rawM_nozero_mean[rawM_0zero_num > 50 & kstwoside > 0.2]

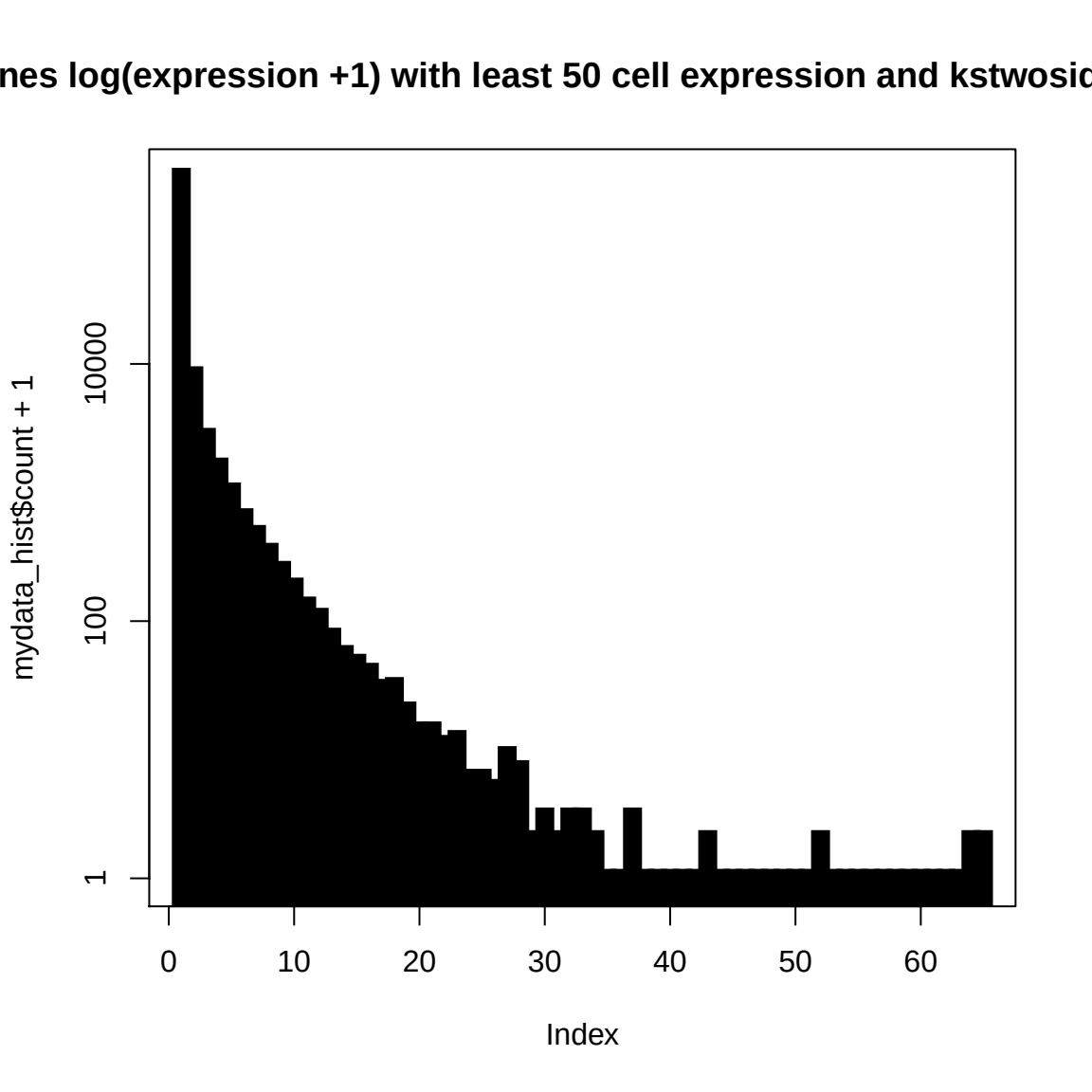

ogram of rawM_nozero_median[rawM_0zero_num > 50 & kstwosi
Frequency
0
200
400
600
800
1000
1200
2
4
6
8
10
rawM_nozero_median[rawM_0zero_num > 50 & kstwoside > 0.2]

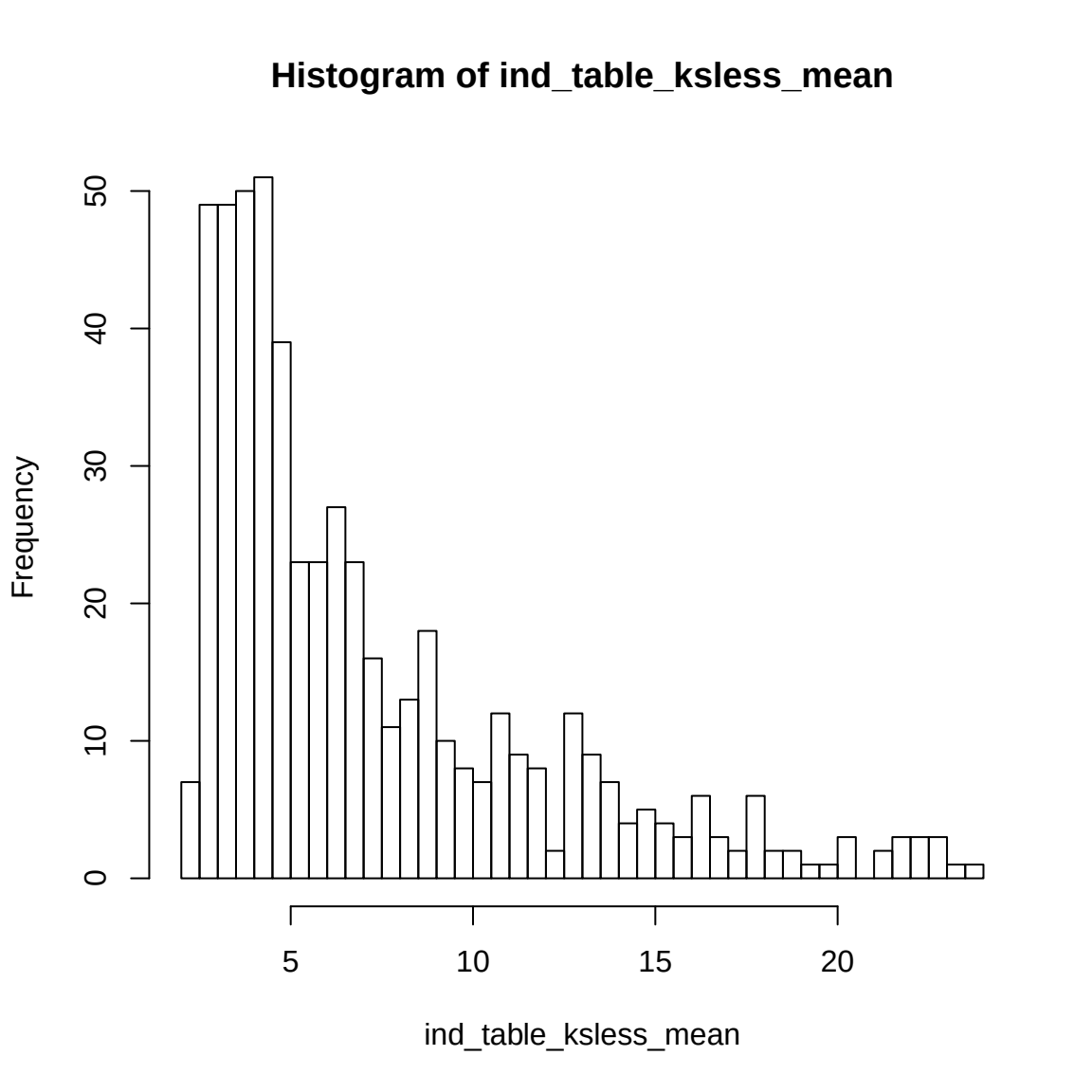

istogram of rawM_nozero_sd[rawM_0zero_num > 50 & kstwoside
Frequency
0
200
400
600
0
2
4
6
8
rawM_nozero_sd[rawM_0zero_num > 50 & kstwoside > 0.2]

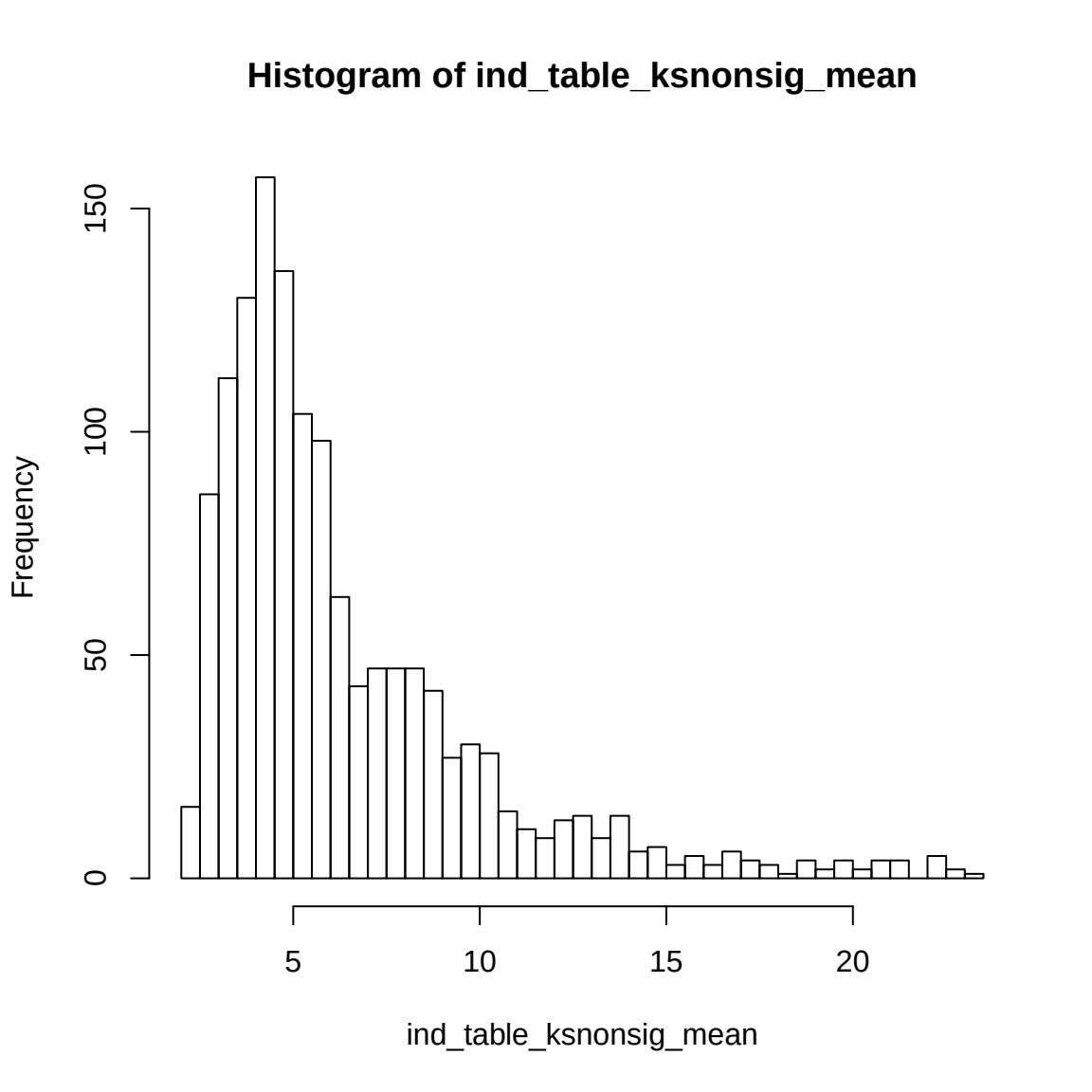

gram of rawM_nozero_skewness[rawM_0zero_num > 50 & kstwos
Frequency
0
100
200
300
400
2
4
6
8
10
rawM_nozero_skewness[rawM_0zero_num > 50 & kstwoside > 0.2]

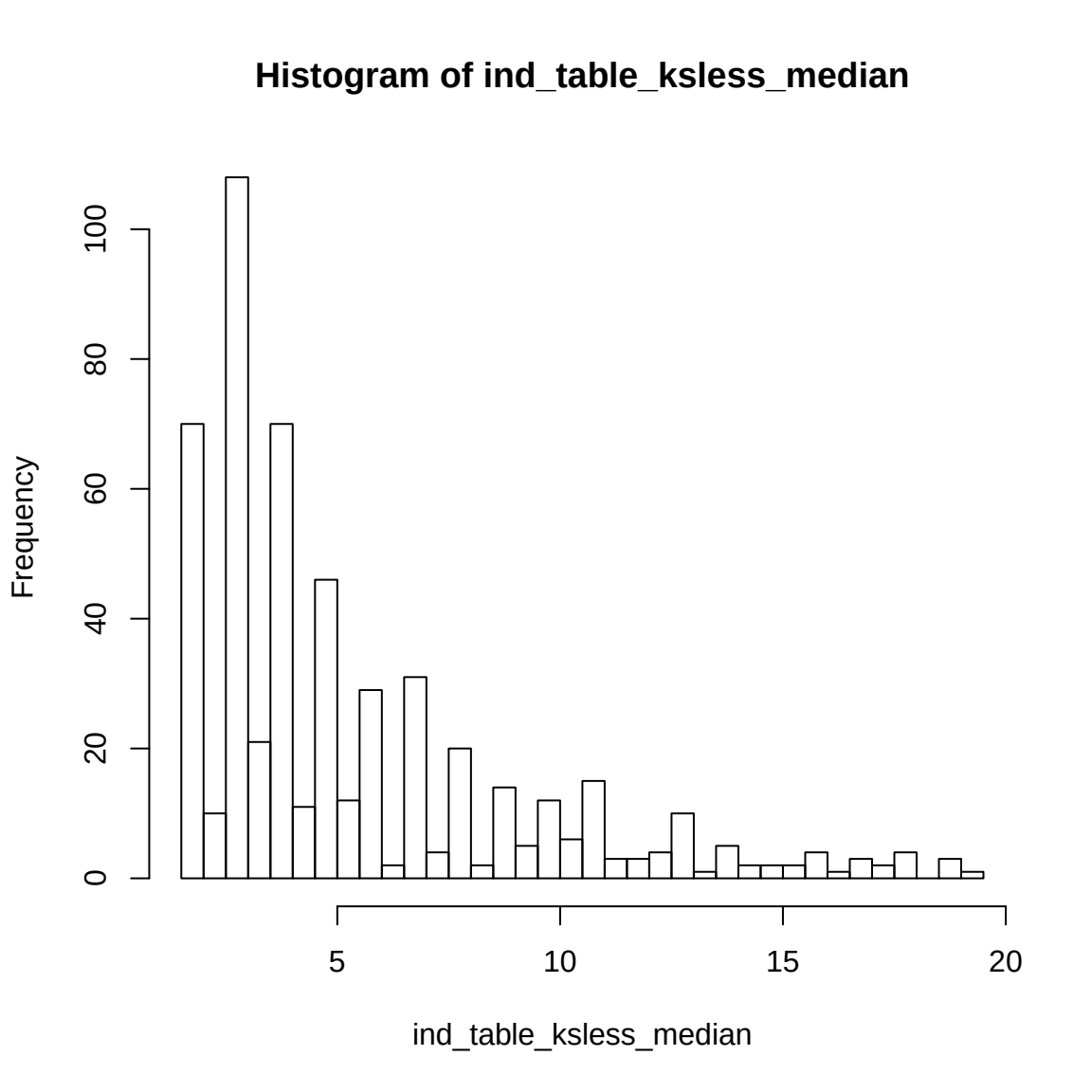

stogram of rawM_nozero_max[rawM_0zero_num > 50 & kstwoside
Frequency
0
200
400
600
800
0
10
20
30
40
50
60
rawM_nozero_max[rawM_0zero_num > 50 & kstwoside > 0.2]

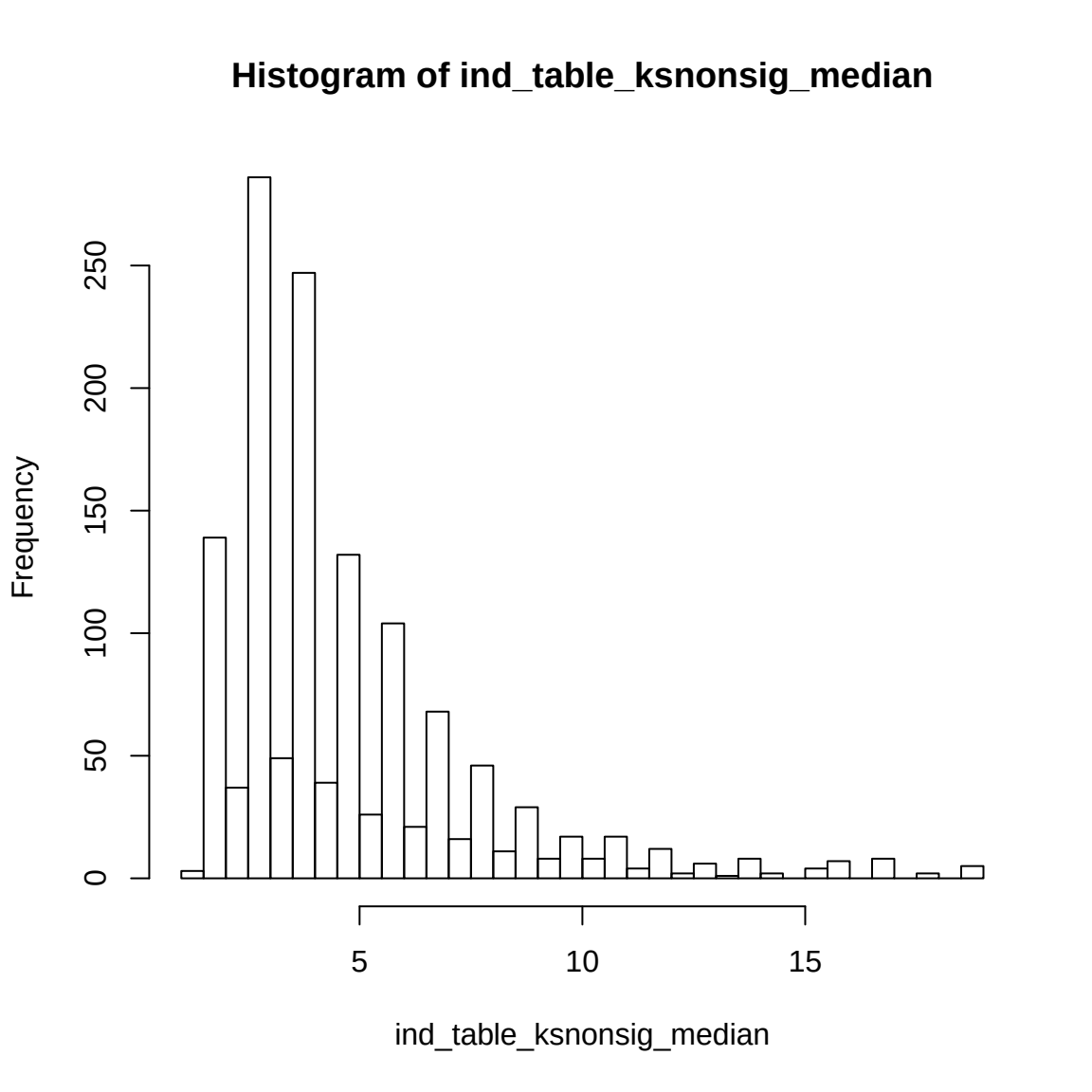

enes log(expression +1) with least 50 cell expression and kstwosi
mydata_hist$count + 1
1e+00
1e+02
1e+04
1e+06
0
10
20
30
40
50
Index

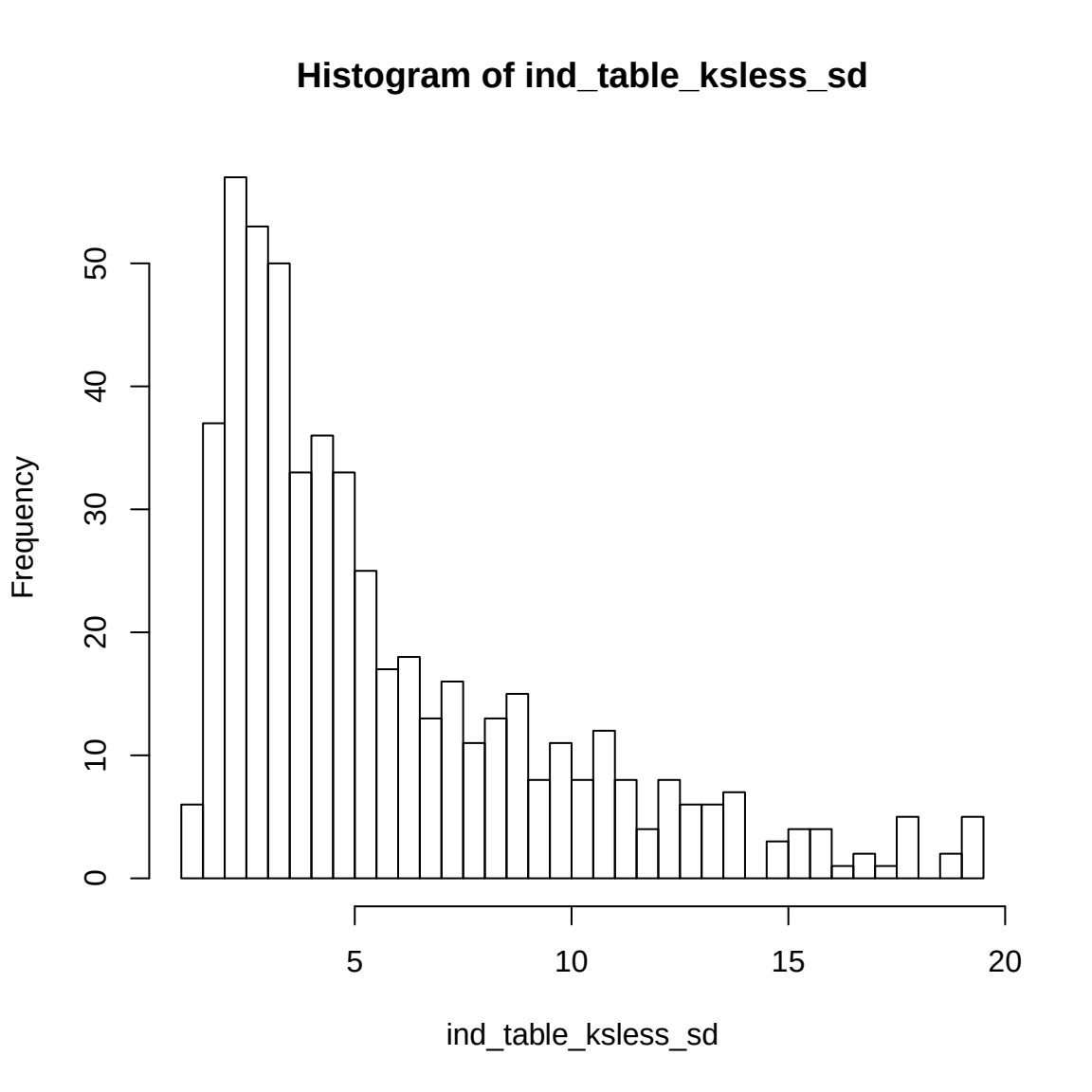

nes log(expression +1) with least 50 cell expression and kstwosic
mydata_hist$count + 1
1
100
10000
0
10
20
30
40
50
60
Index

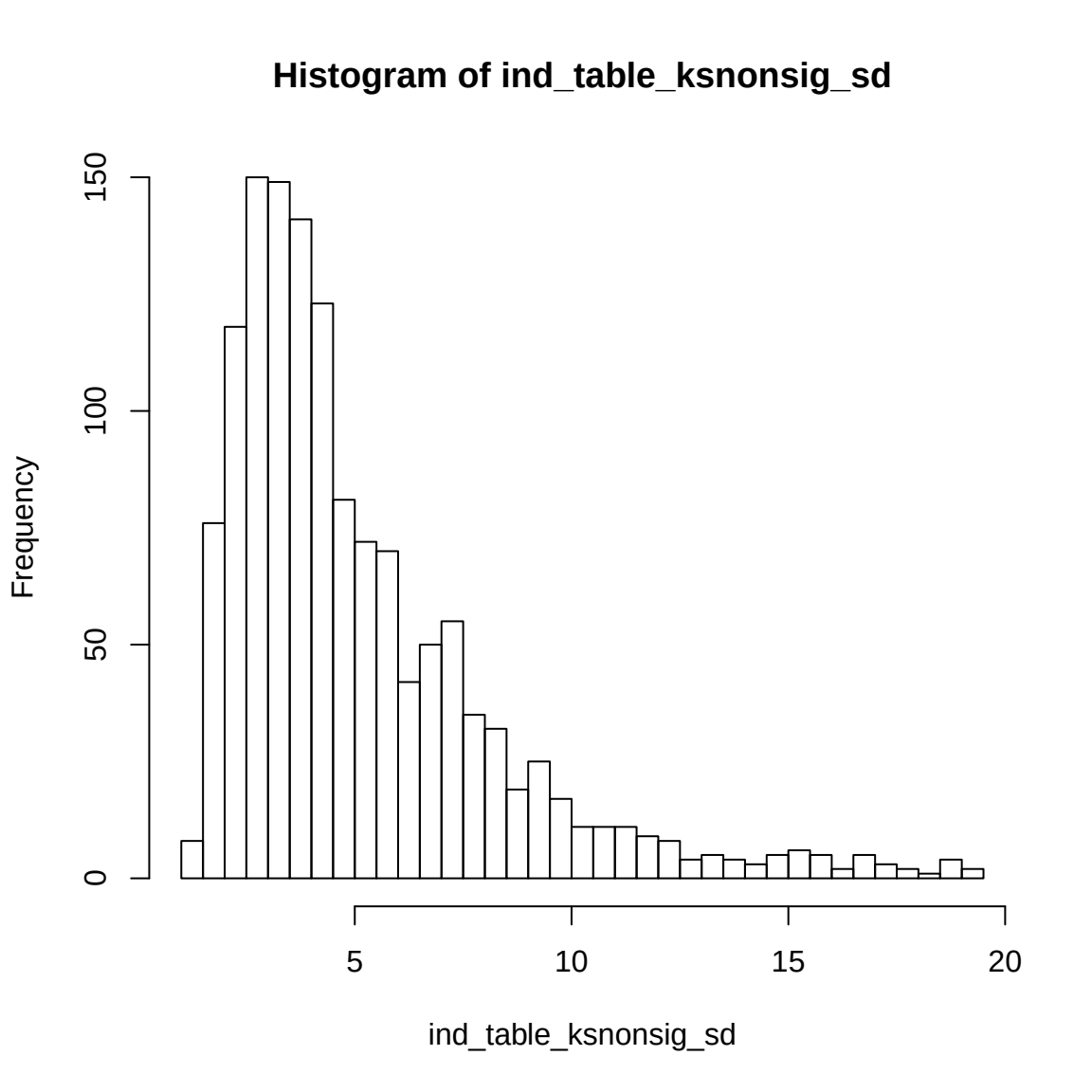

Histogram of ind_table_ksless_mean
Frequency
0
10
20
30
40
50
5
10
15
20
ind_table_ksless_mean

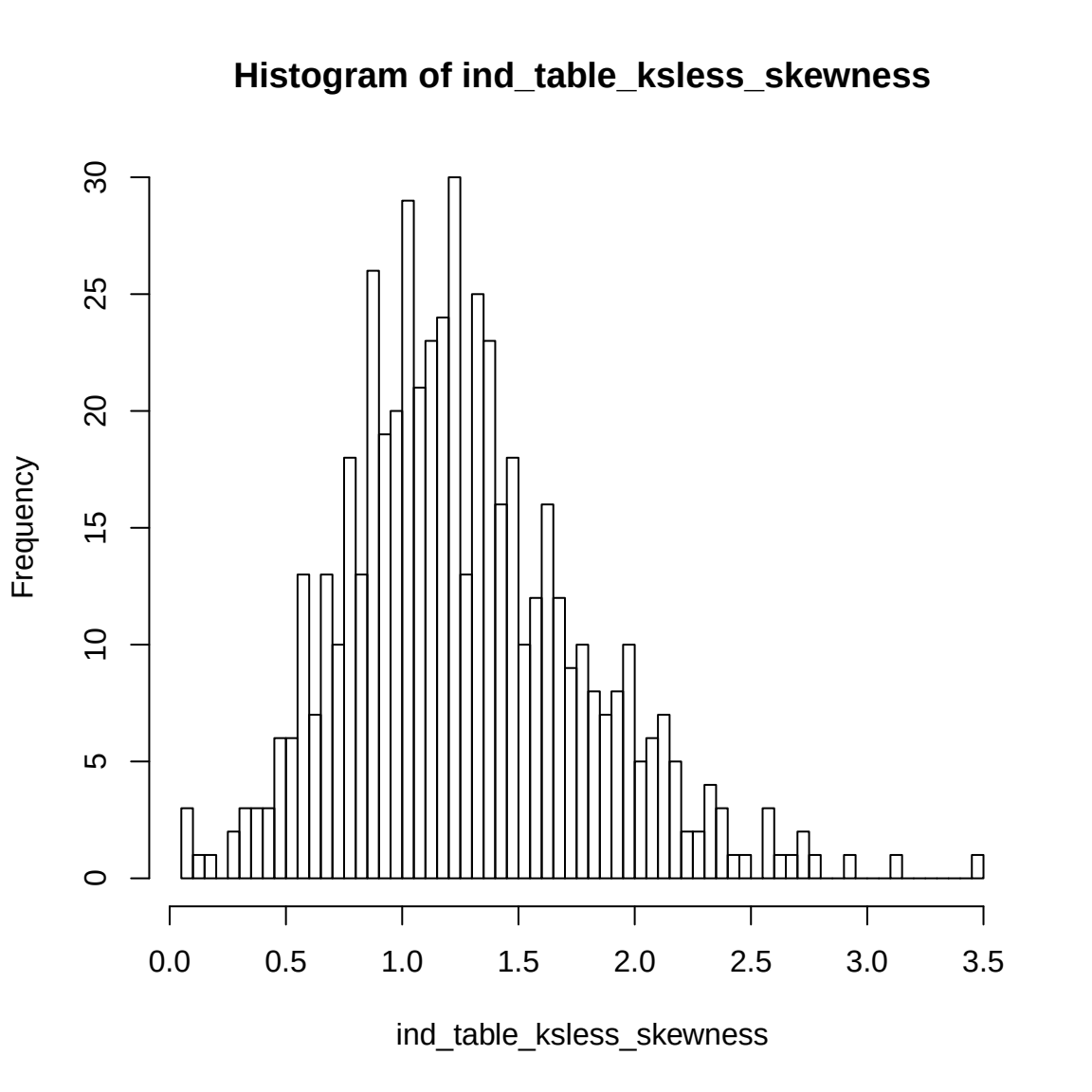

Histogram of ind_table_ksnonsig_mean
Frequency
0
50
100
150
5
10
15
20
ind_table_ksnonsig_mean

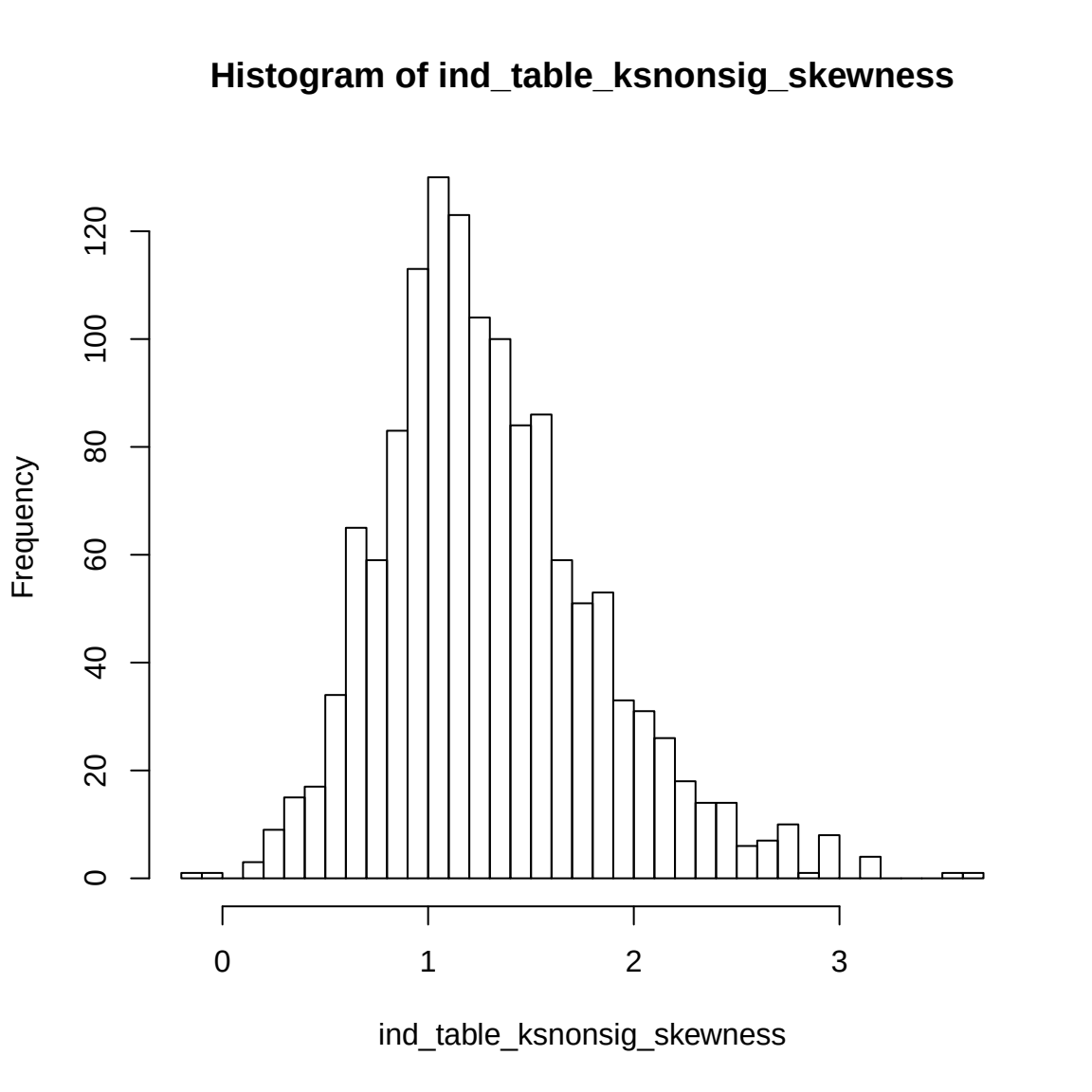

Histogram of ind_table_ksless_median
Frequency
0
20
40
60
80
100
5
10
15
20
ind_table_ksless_median

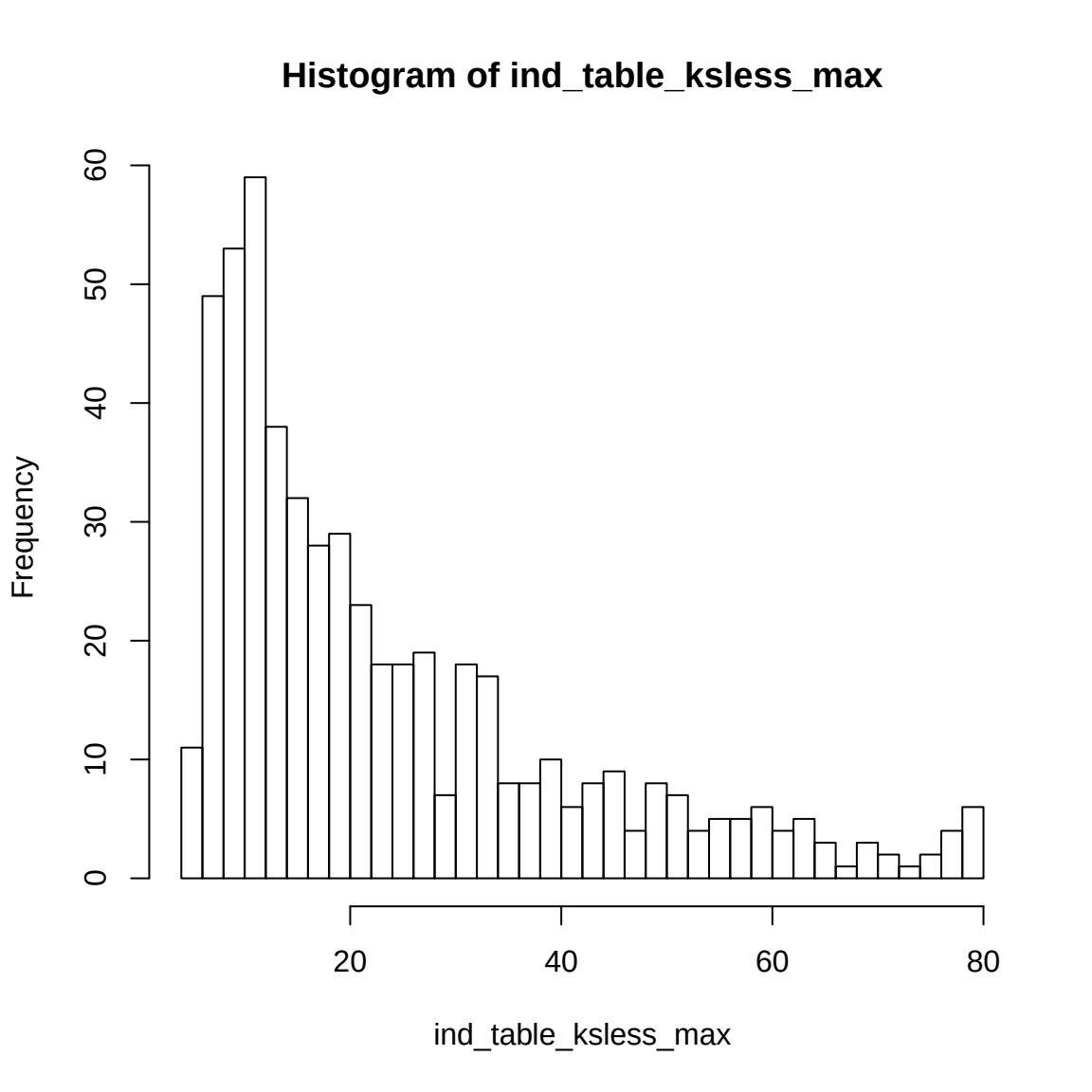

Histogram of ind_table_ksnonsig_median
Frequency
0
50
100
150
200
250
5
10
15
ind_table_ksnonsig_median

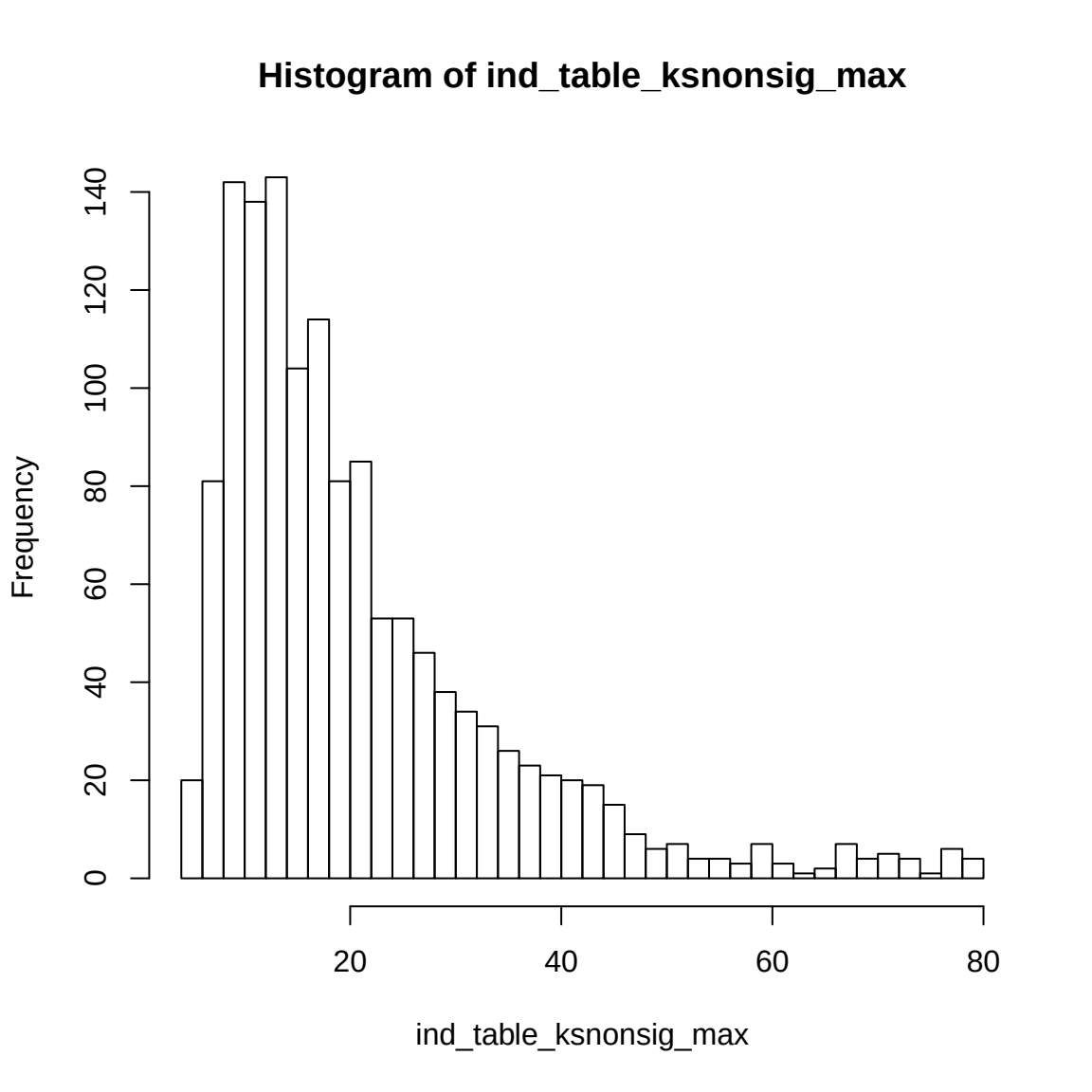

Histogram of ind_table_ksless_sd
Frequency
0
10
20
30
40
50
5
10
15
20
ind_table_ksless_sd


Histogram of ind_table_ksnonsig_sd
Frequency
0
50
100
150
5
10
15
20
ind_table_ksnonsig_sd


Histogram of ind_table_ksless_skewness
Frequency
0
5
10
15
20
25
30
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
ind_table_ksless_skewness


Histogram of ind_table_ksnonsig_skewness
Frequency
0
20
40
60
80
100
120
0
1
2
3
ind_table_ksnonsig_skewness


Histogram of ind_table_ksless_max
Frequency
0
10
20
30
40
50
60
20
40
60
80
ind_table_ksless_max


Histogram of ind_table_ksnonsig_max
Frequency
0
20
40
60
80
100
120
140
20
40
60
80
ind_table_ksnonsig_max