

**Supp. Figure 1 (pages 1-194). isomiR boxplots.** Shown are boxplots for all 194 miRBase miRNAs and their associated isomiRs. For each plot, the Y-axis is the quantile normalized sequence read counts for each isomiR. The miRBase reference is green and the isomiRs are red.

**Supp. Figure 2 (pages 195-199). Differentially expressed isomiRs for each population.** Shown are individual heatmaps for each of the five different population groups examined. Plotted are the population comparisons (columns) and the rows are the different isomiRs. Cells shown in light gray correspond to cases that did not reach statistical significance for the corresponding isomiR/population combination. All other cells correspond to statistically significant combinations with an associated FDR value  $\leq 0.05$ . The color intensity scale is logarithmic ( $\log_2$ ).

**Supp. Figure 3 (pages 199-204). Differentially expressed isomiRs for males only.** Shown are individual heatmaps for each of the male subjects from the five different population groups examined. Plotted are the population comparisons (columns) and the rows are the different isomiRs. Cells shown in light gray correspond to cases that did not reach statistical significance for the corresponding isomiR/population combination. All other cells correspond to statistically significant combinations with an associated FDR value  $\leq 0.05$ . The color intensity scale is logarithmic ( $\log_2$ ).

**Supp. Figure 4 (pages 205-209). Differentially expressed isomiRs for females only.** Shown are individual heatmaps for each of the female subjects from the five different population groups examined. Plotted are the population comparisons (columns) and the rows are the different isomiRs. Cells shown in light gray correspond to cases that did not reach statistical significance for the corresponding isomiR/population combination. All other cells correspond to statistically significant combinations with an associated FDR value  $\leq 0.05$ . The color intensity scale is logarithmic ( $\log_2$ ).

**Supp. Figure 5 (page 210). Distribution of isomiR termini.** Shown is a schematic representation of the distribution of 5' and 3' terminus of the isomiRs. The 22 nts of the miRBase reference entry is shown in blue with each box and each box extending past represents an additional nucleotide position. The graphs show the distribution of bases at each nucleotide position either extending past the miRBase reference terminus or before the terminus.

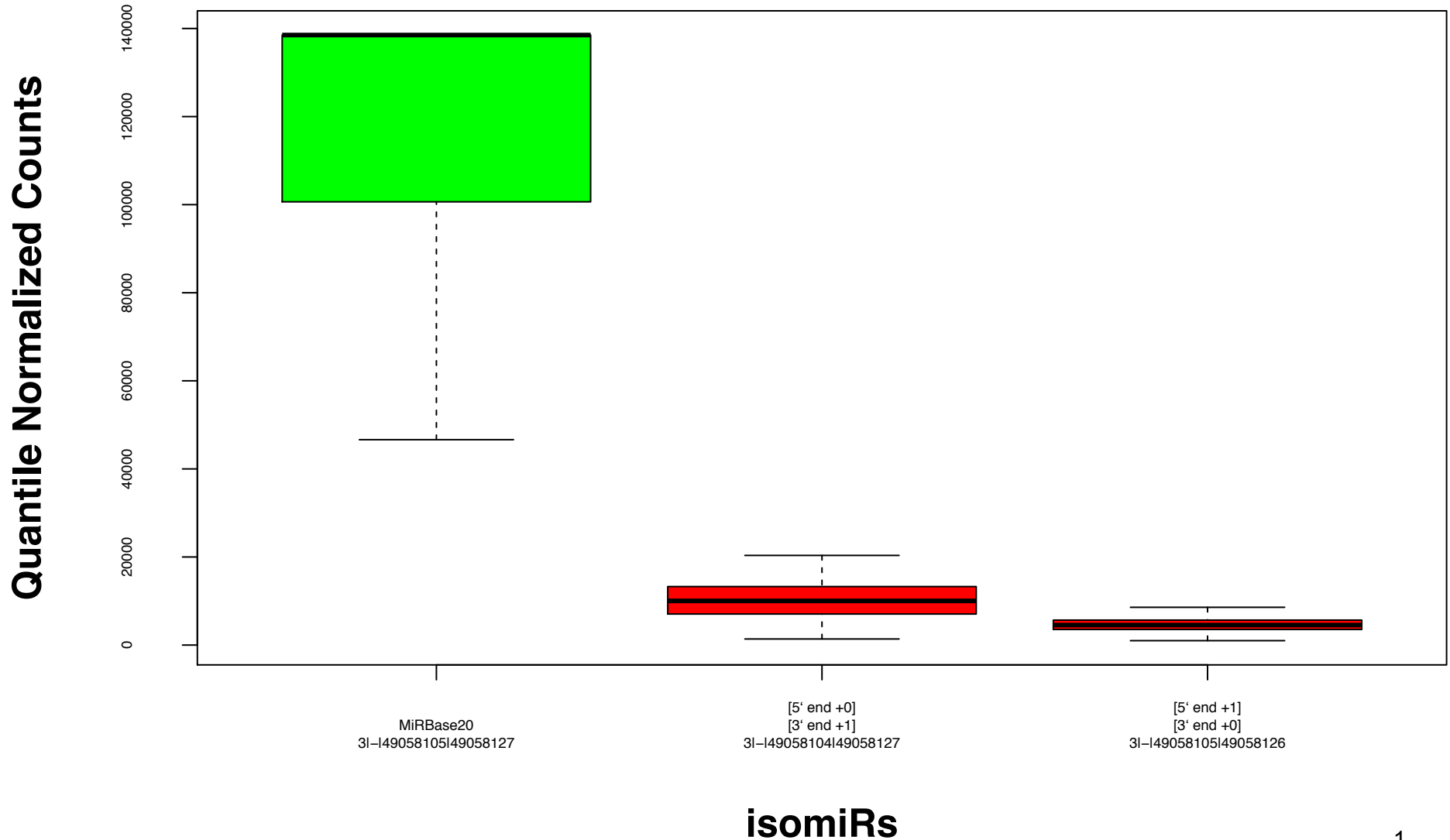
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**Supp. Table 1 (page 211). Statistics for each population separately for the single most abundant isomiR produced from a given precursor arm.** The most abundant isomiR's identity was determined by analyzing the technical replicates separately for each of the populations. At each locus, we also generated the "conservative" estimate by requiring that the most abundant isomiR have higher expression than the miRBase reference by at least  $0.585 \log_2$  units.

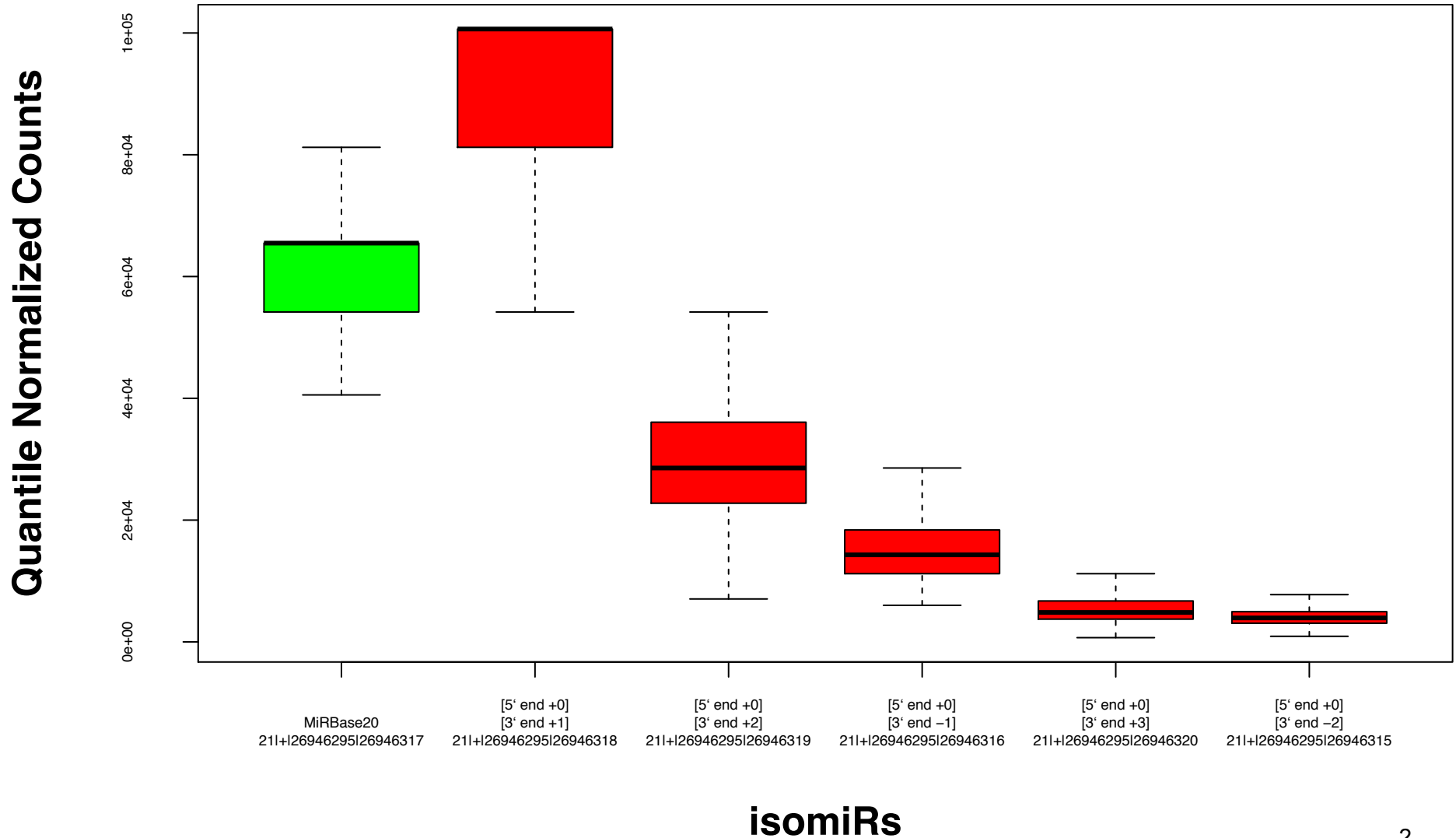
**Supp. Table 2 (page 212). Statistics for each population separately for the single most abundant isomiR produced from a given precursor arm – using only females.** The most abundant isomiR's identity was determined by analyzing the entire collection of all unique datasets that passed quality control and belonged to females. At each locus, we also generated the "conservative" estimate by requiring that the most abundant isomiR have higher expression than the miRBase reference by at least  $0.585 \log_2$  units.

**Supp. Table 3 (page 213). Statistics for each population separately for the single most abundant isomiR produced from a given precursor arm – using only males.** The most abundant isomiR's identity was determined by analyzing the entire collection of all unique datasets that passed quality control and belonged to males. At each locus, we also generated the "conservative" estimate by requiring that the most abundant isomiR have higher expression than the miRBase reference by at least  $0.585 \log_2$  units.

# MIMAT0000440=hsa-miR-191-5p=MI0000465

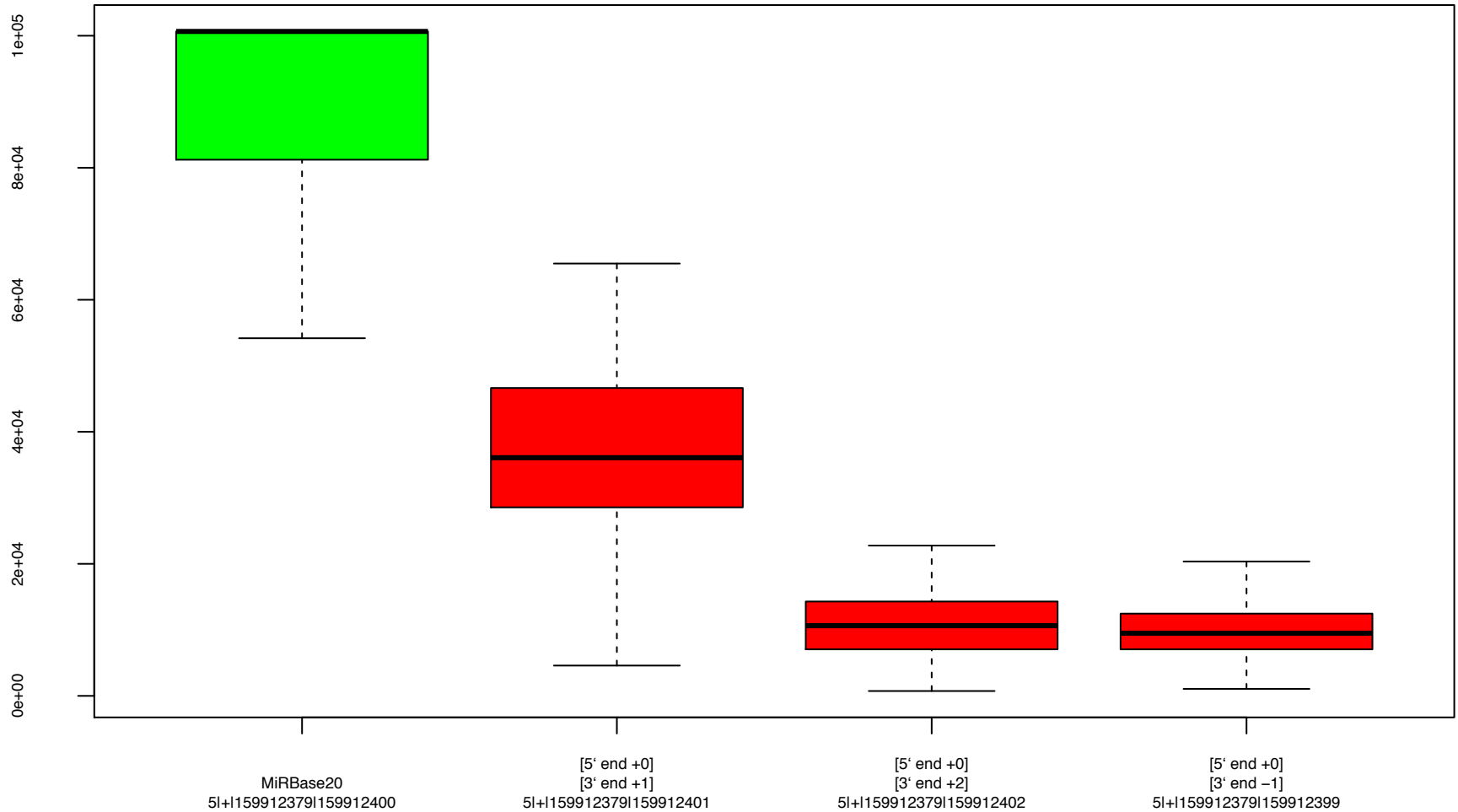


# MIMAT0000646=hsa-miR-155-5p=MI0000681



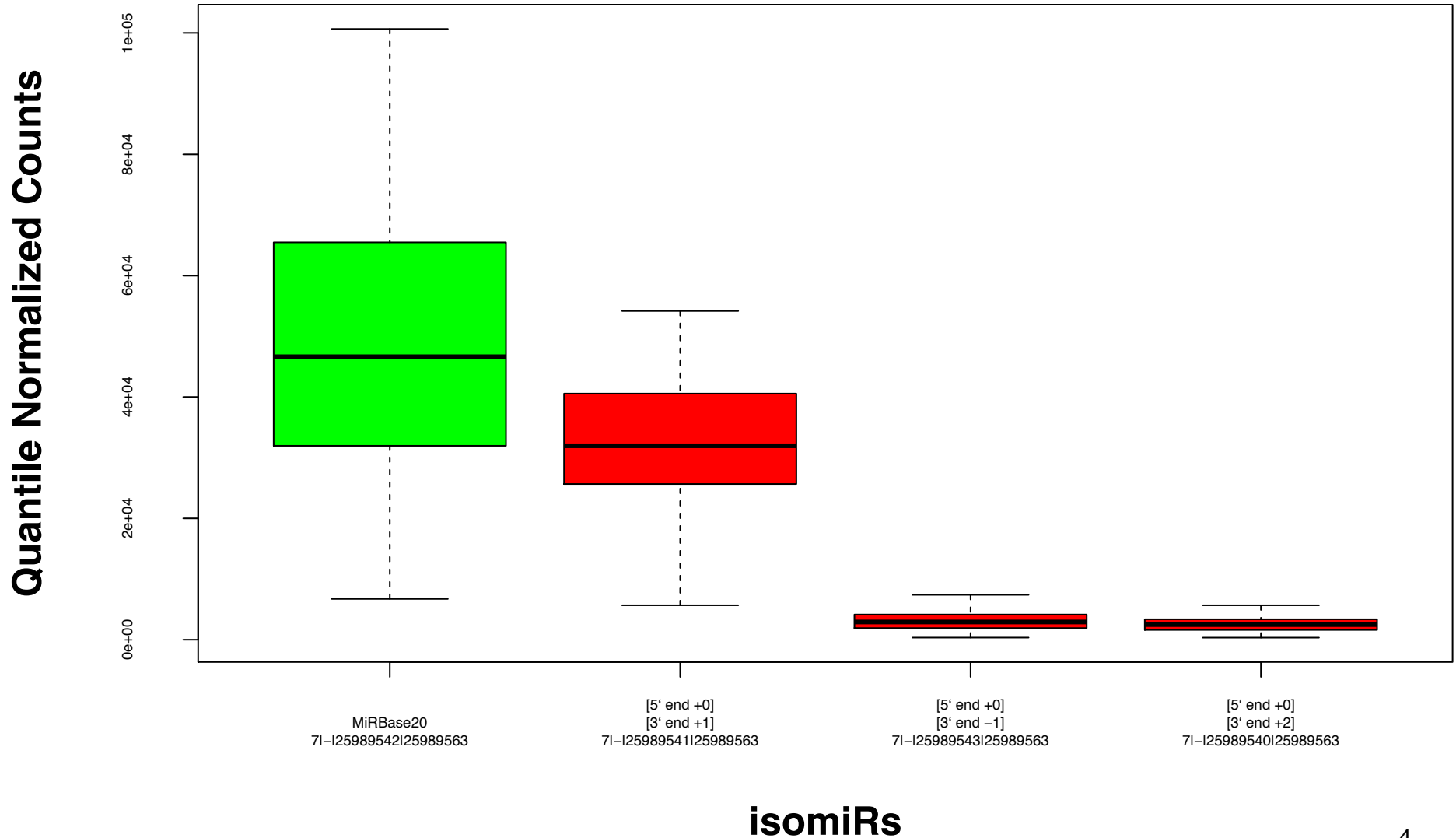
# MIMAT0000449=hsa-miR-146a-5p=MI0000477

Quantile Normalized Counts



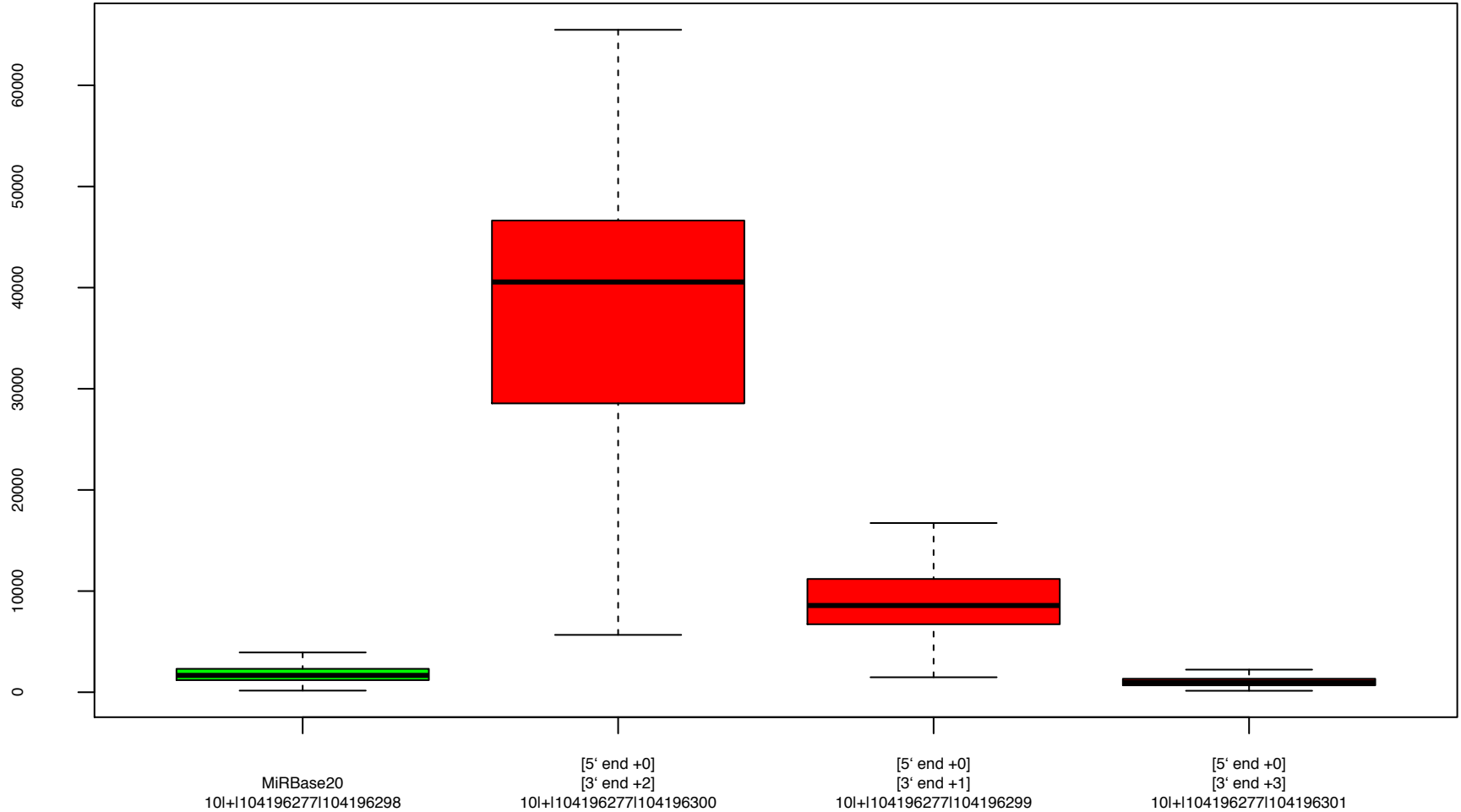
isomiRs

# MIMAT0000243=hsa-miR-148a-3p=MI0000253



# MIMAT0002809=hsa-miR-146b-5p=MI0003129

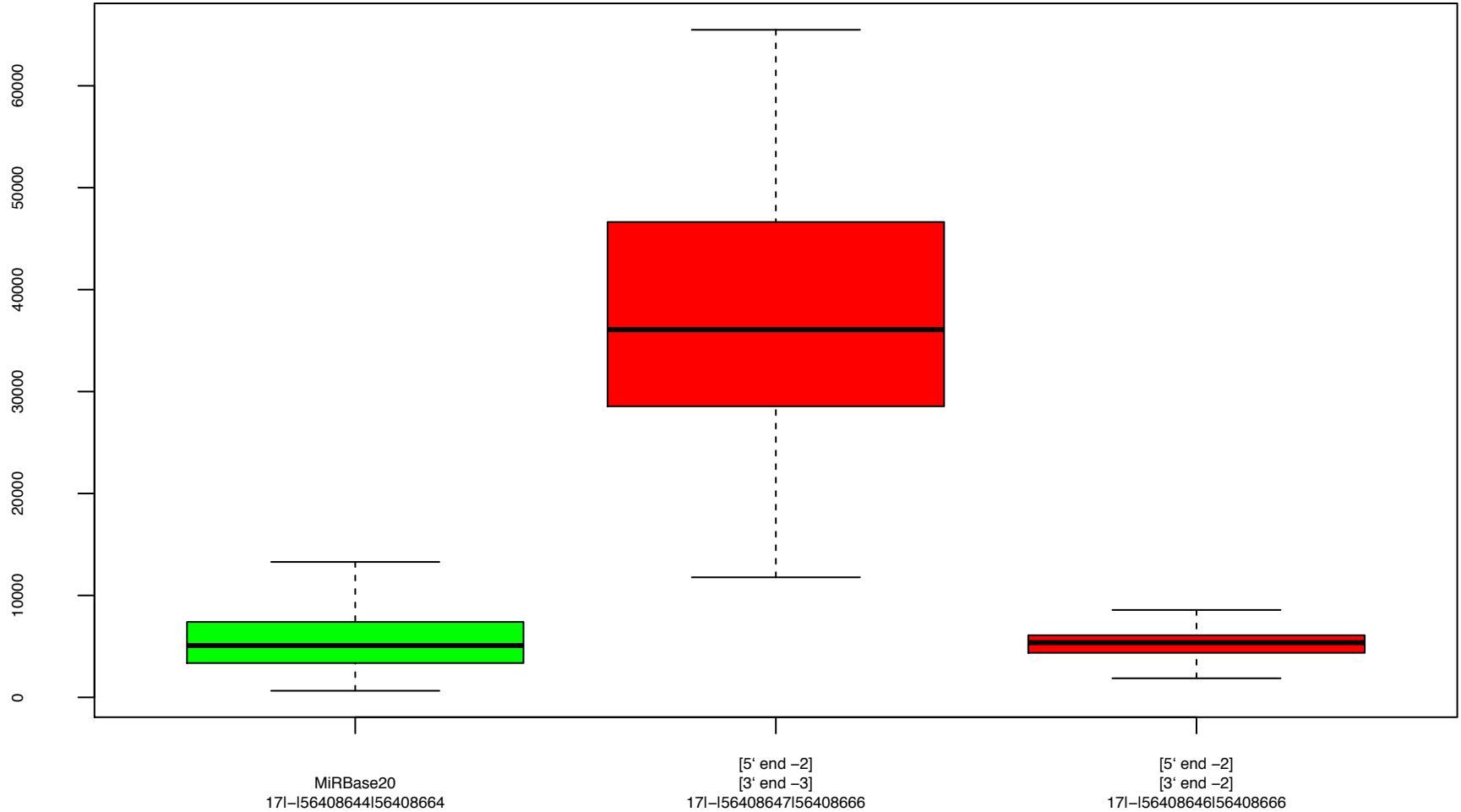
Quantile Normalized Counts



isomiRs

# MIMAT0000433=hsa-miR-142-5p=MI0000458

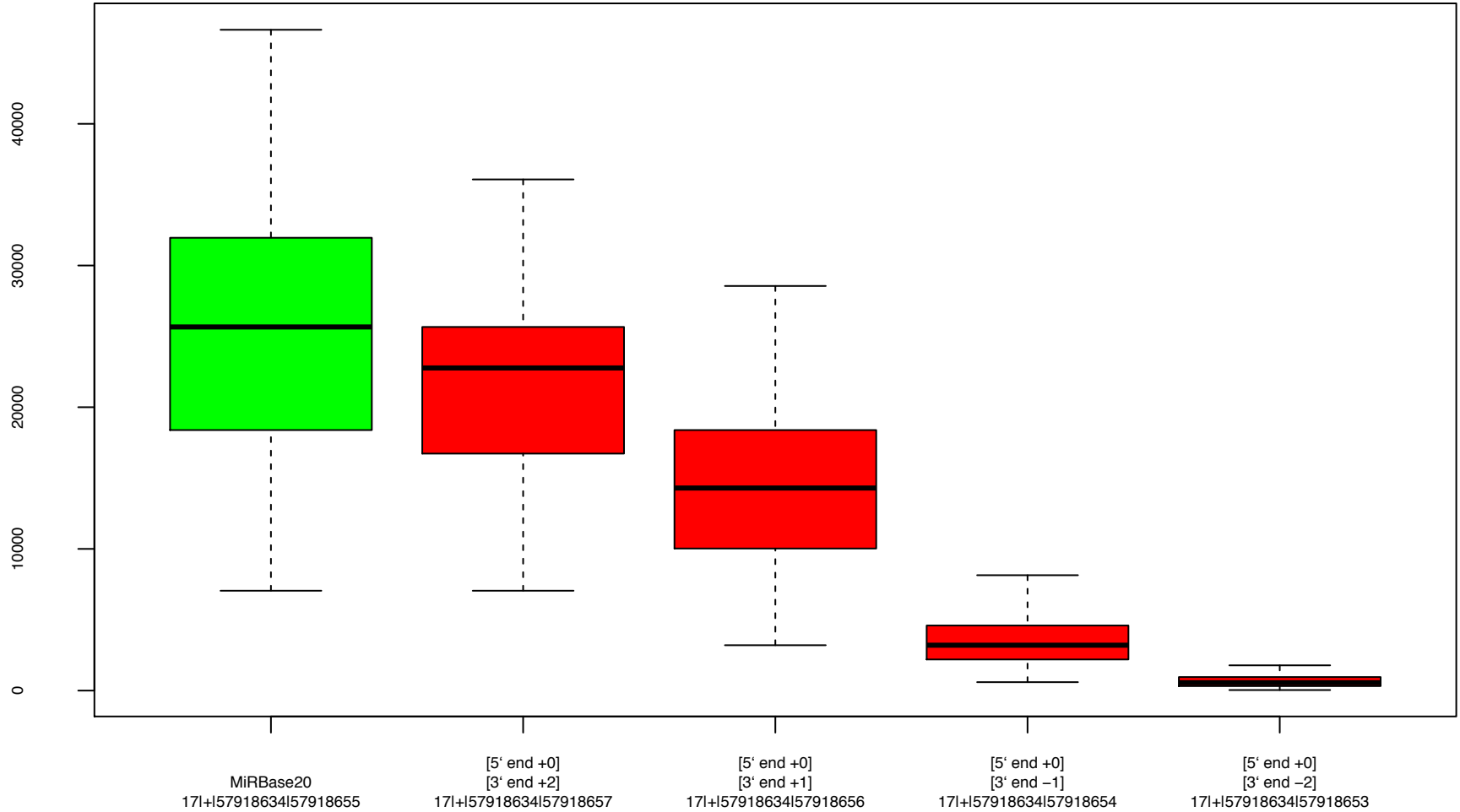
Quantile Normalized Counts



isomiRs

# MIMAT0000076=hsa-miR-21-5p=MI0000077

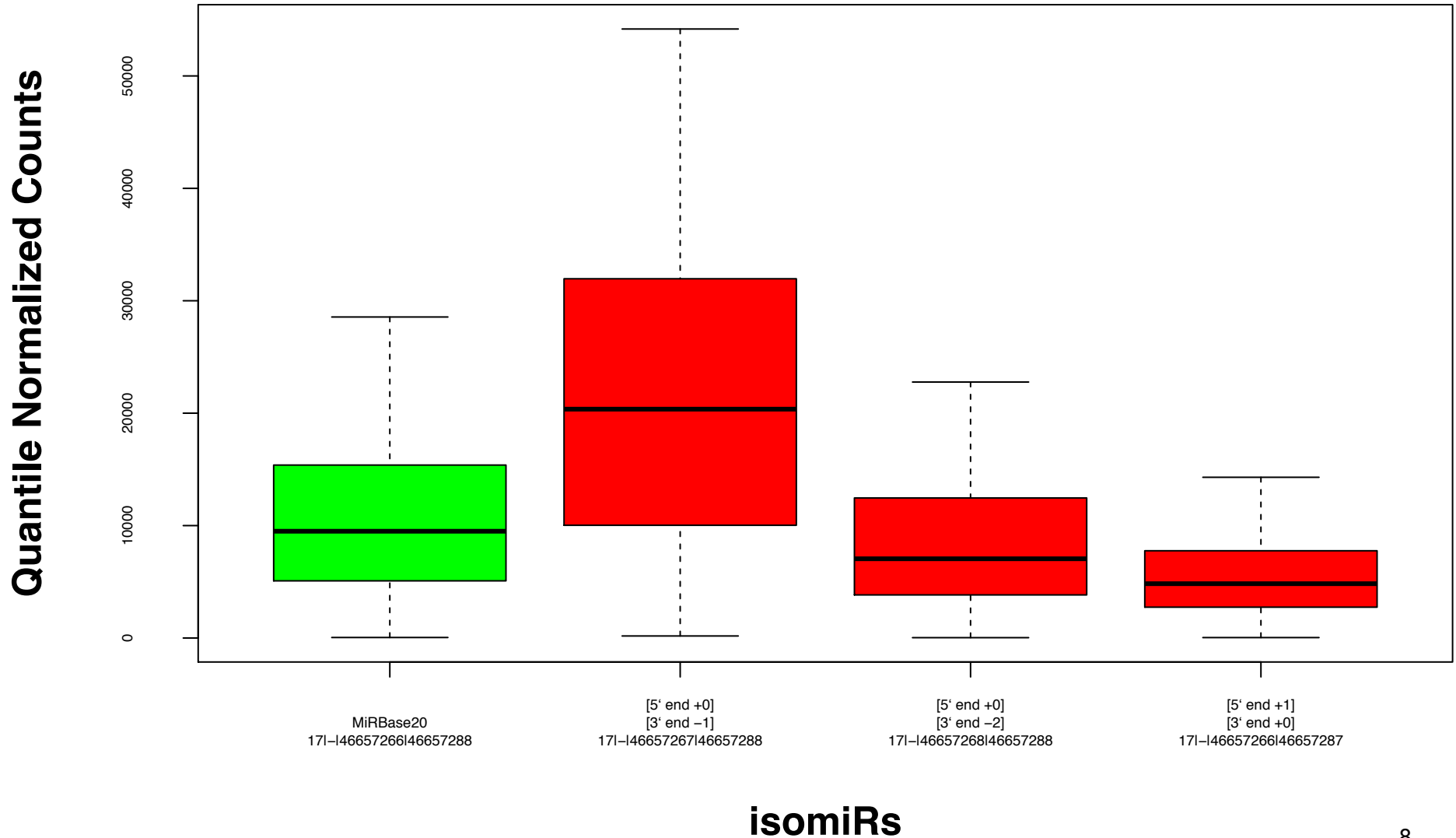
Quantile Normalized Counts



isomiRs

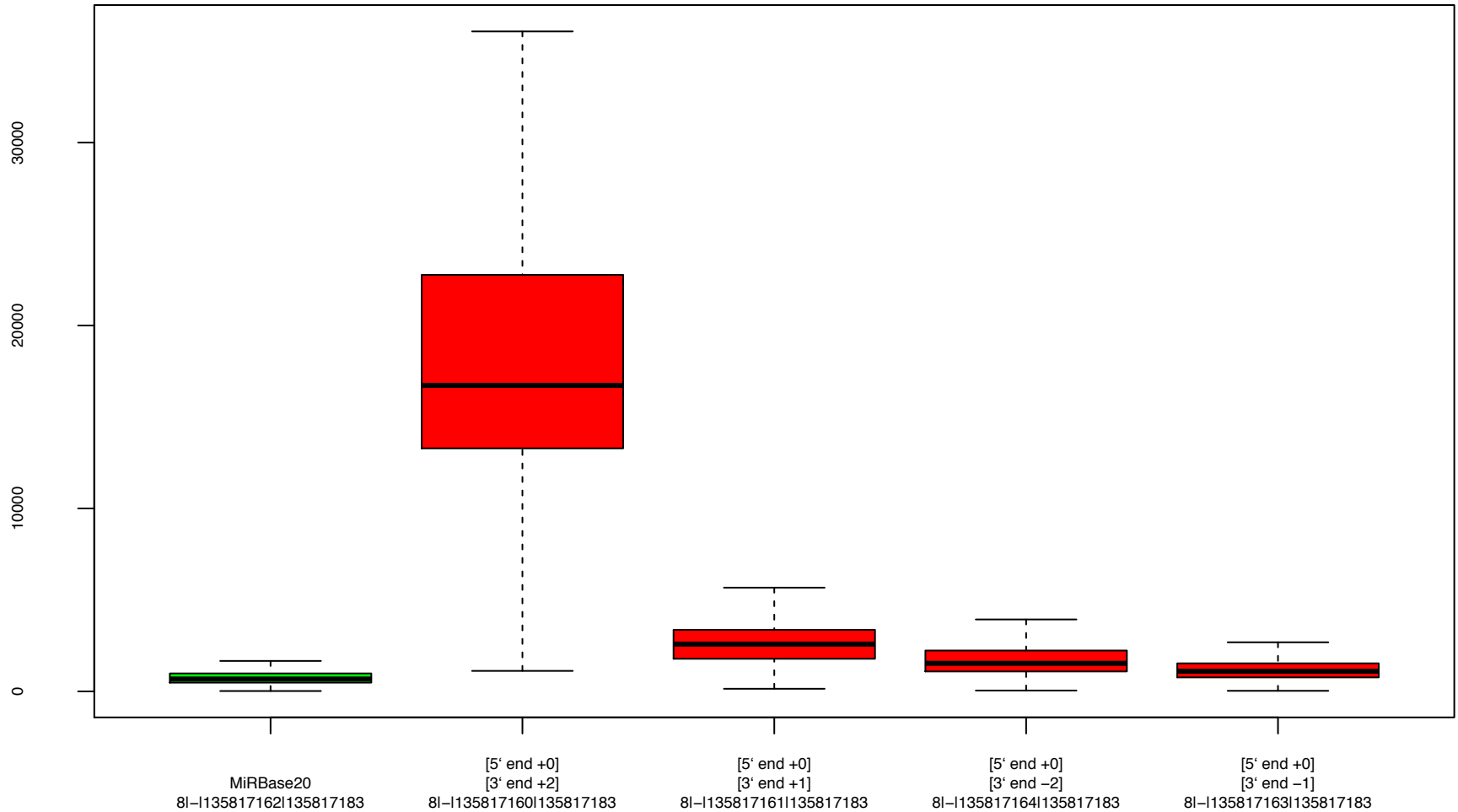


# MIMAT0000253=hsa-miR-10a-5p=MI0000266



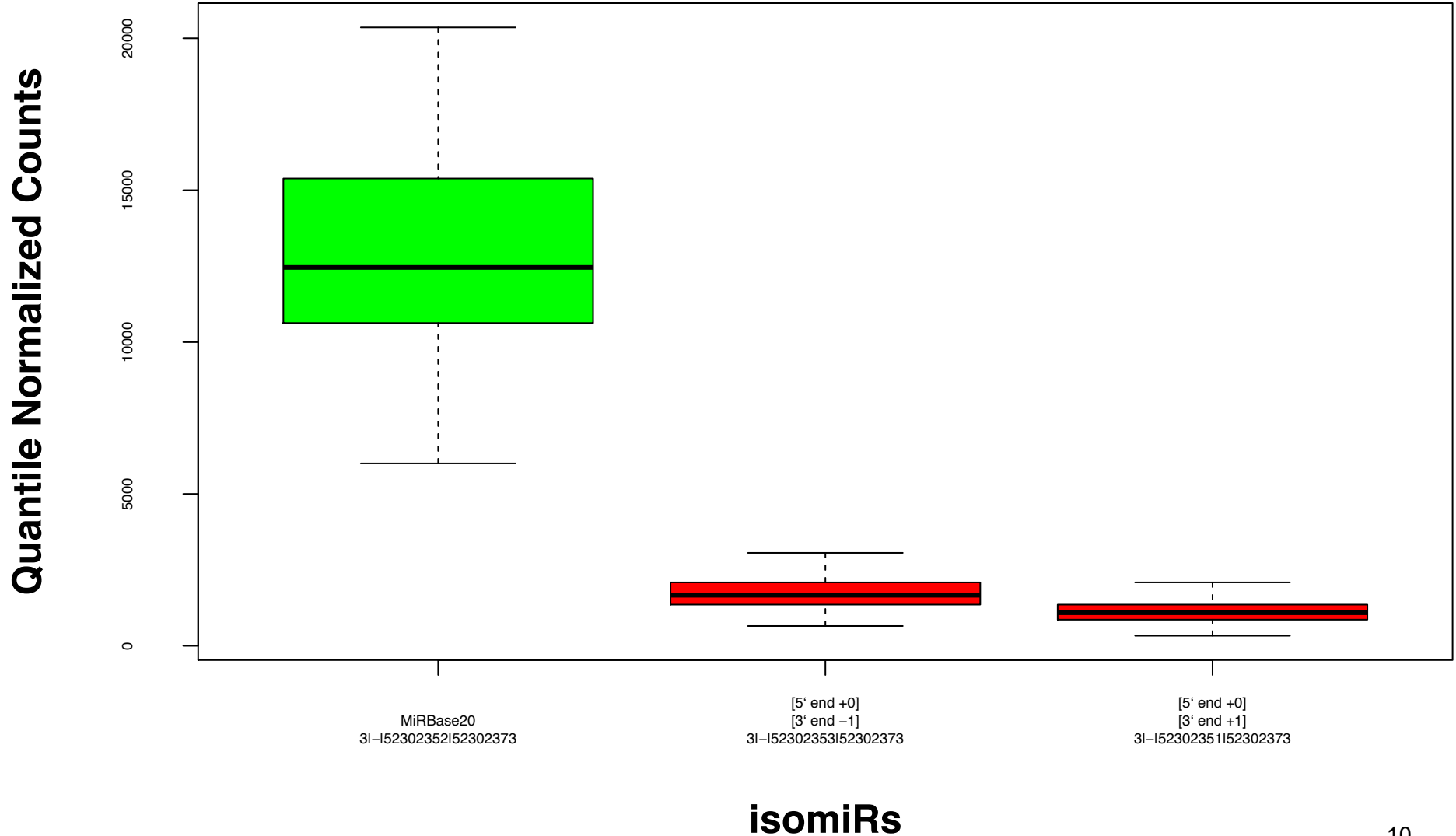
# MIMAT0000245=hsa-miR-30d-5p=MI0000255

Quantile Normalized Counts



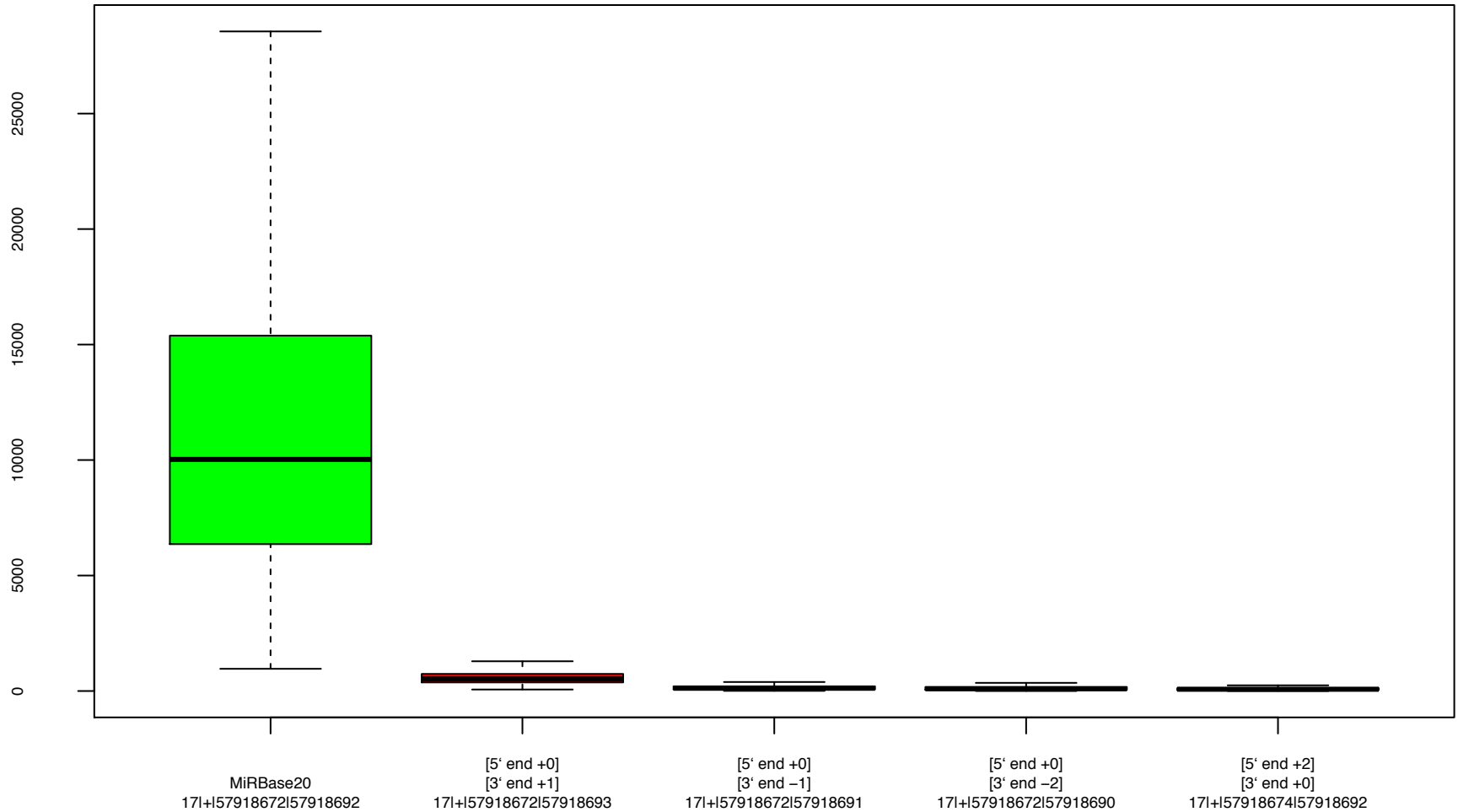
isomiRs

# MIMAT0000414=hsa-let-7g-5p=MI0000433



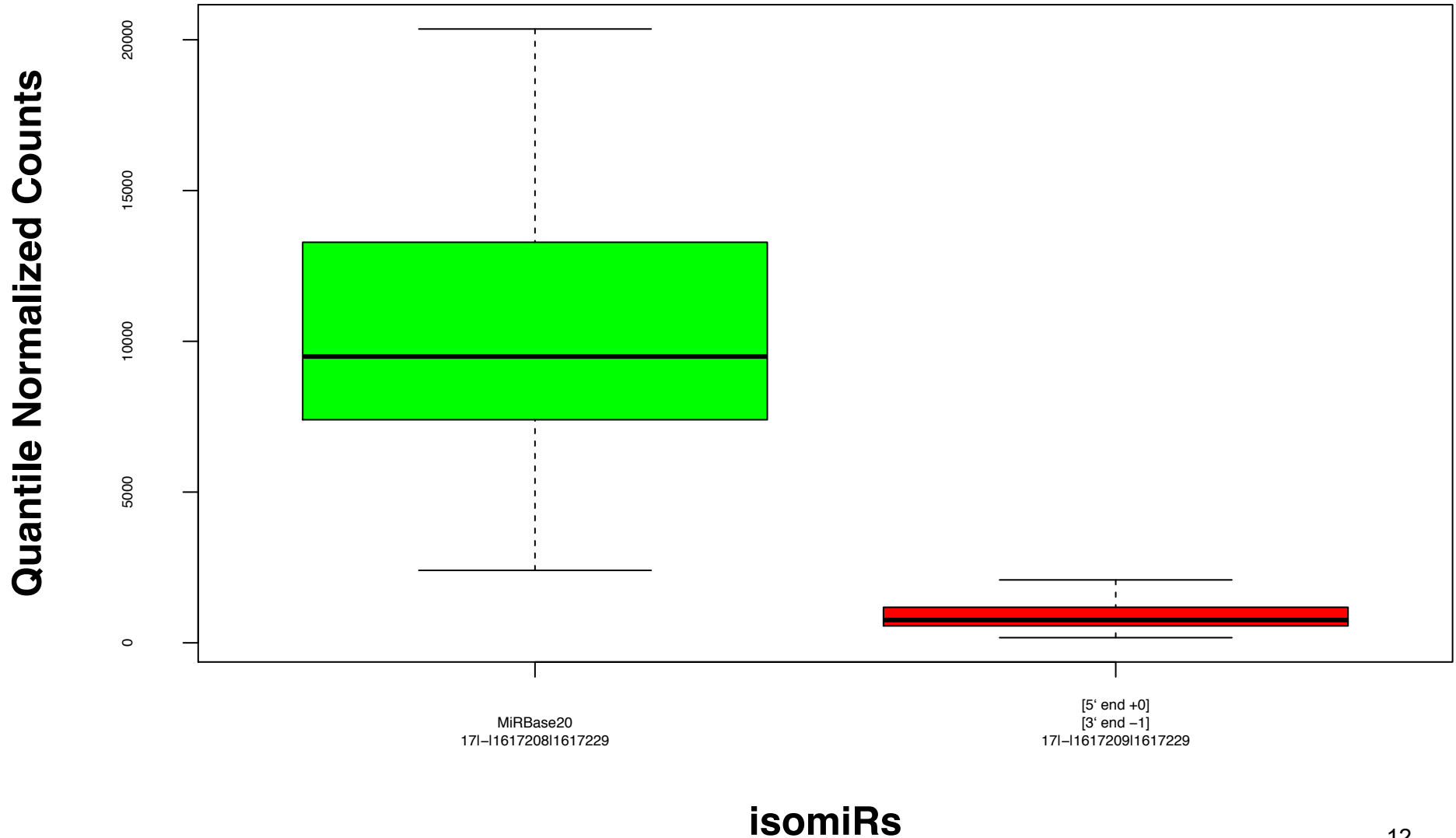
# MIMAT0004494=hsa-miR-21-3p=MI0000077

Quantile Normalized Counts



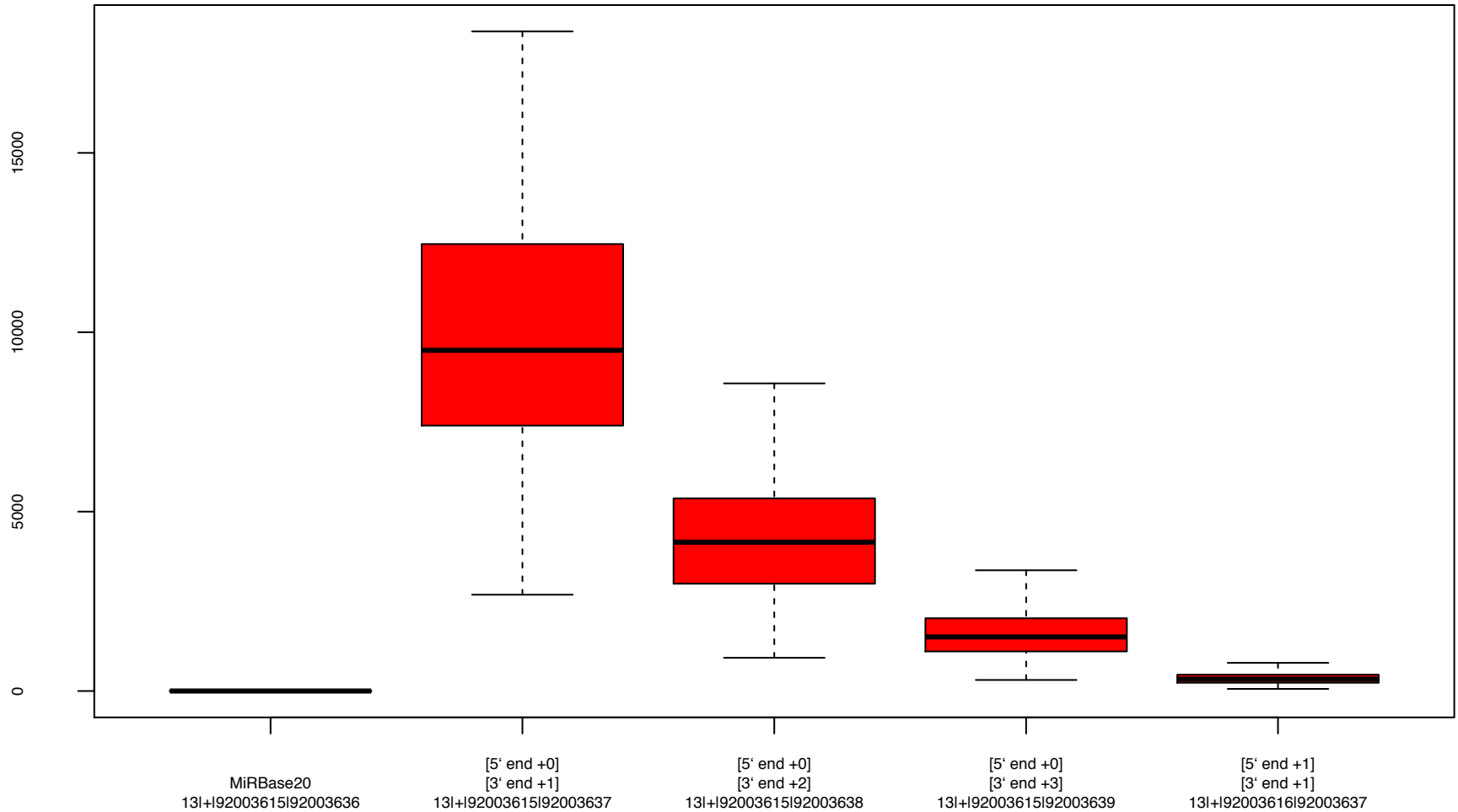
isomiRs

# MIMAT0000077=hsa-miR-22-3p=MI0000078



# MIMAT0000092=hsa-miR-92a-3p=MI0000093

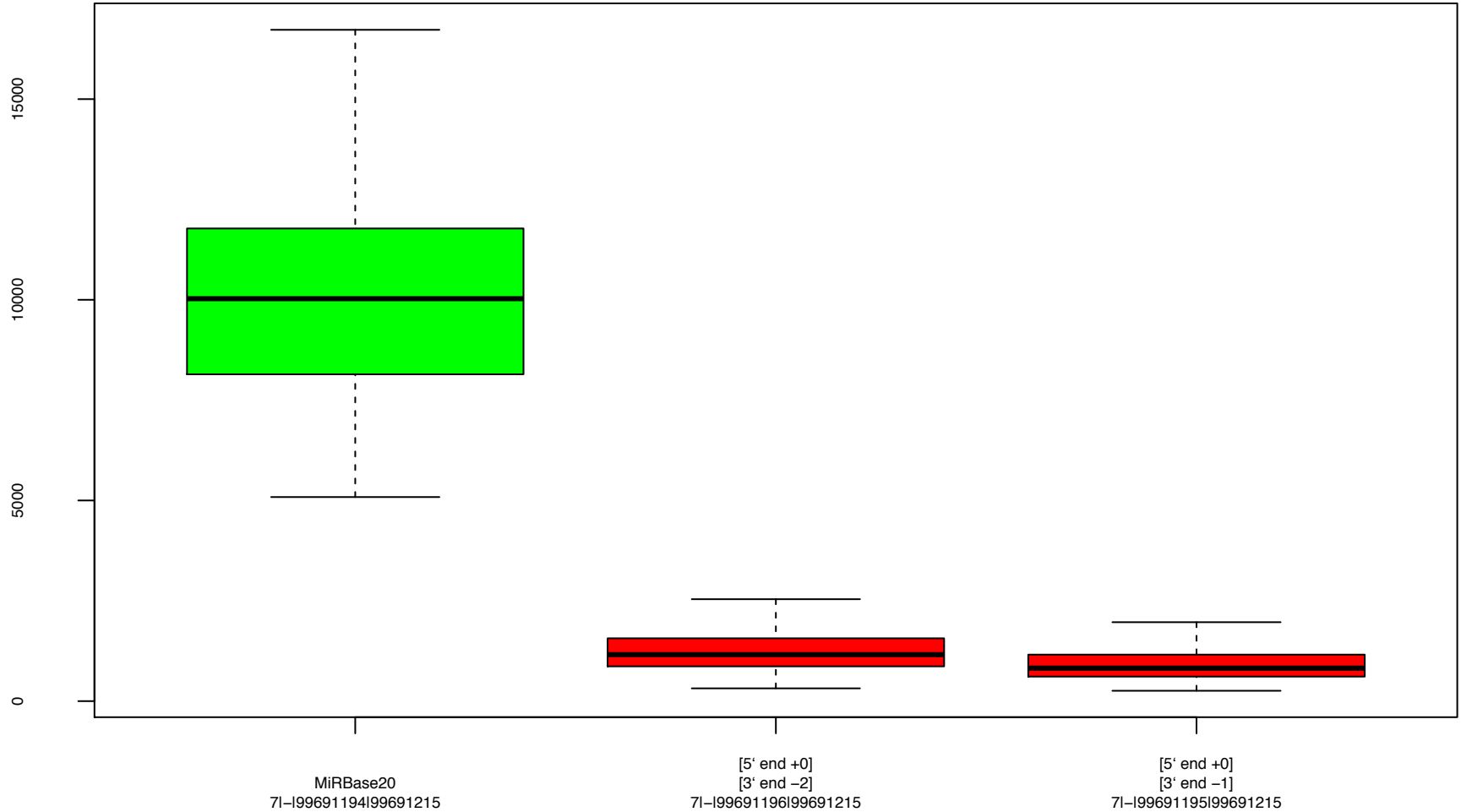
Quantile Normalized Counts



isomiRs

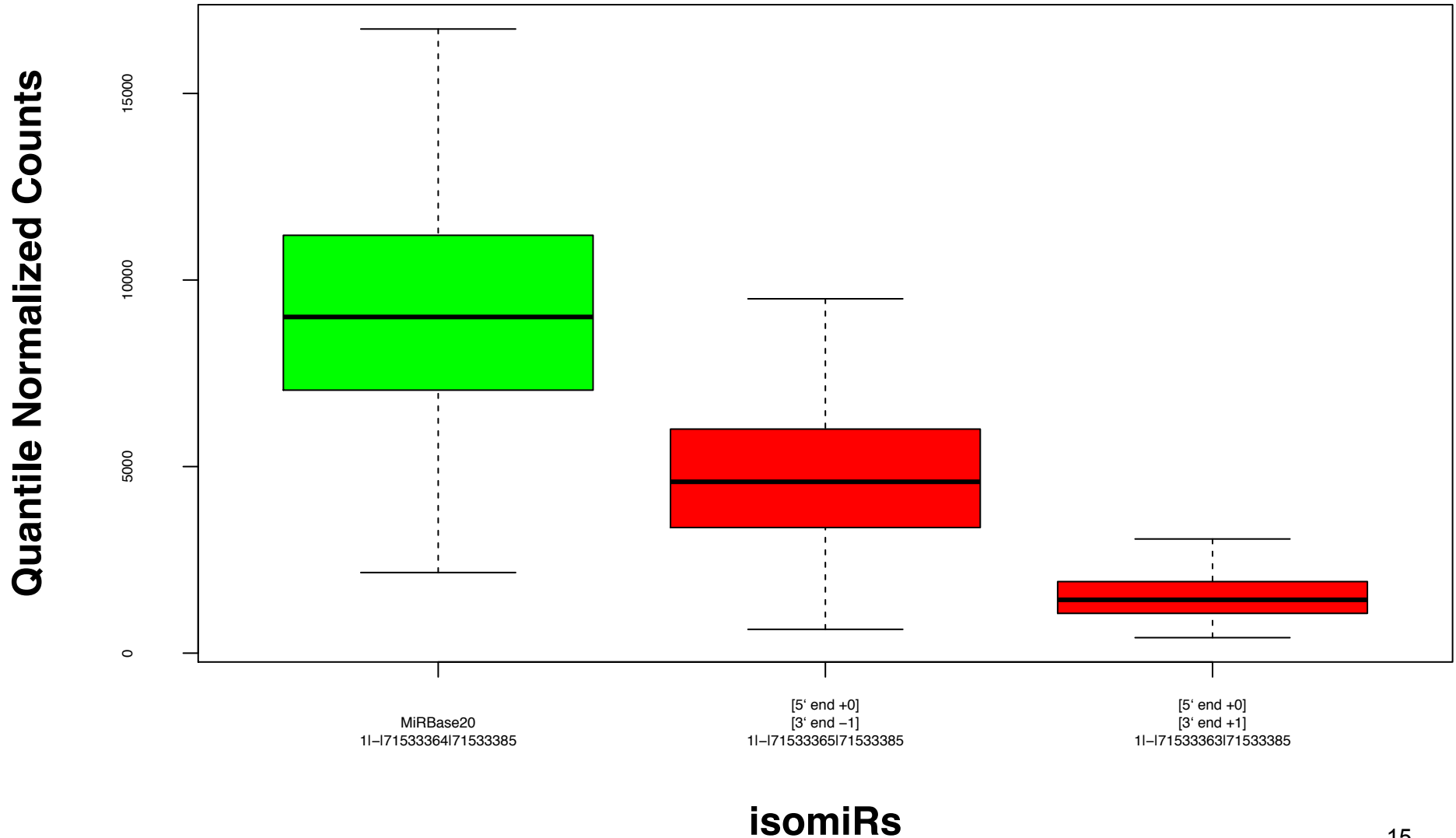
# MIMAT0000081=hsa-miR-25-3p=MI0000082

Quantile Normalized Counts



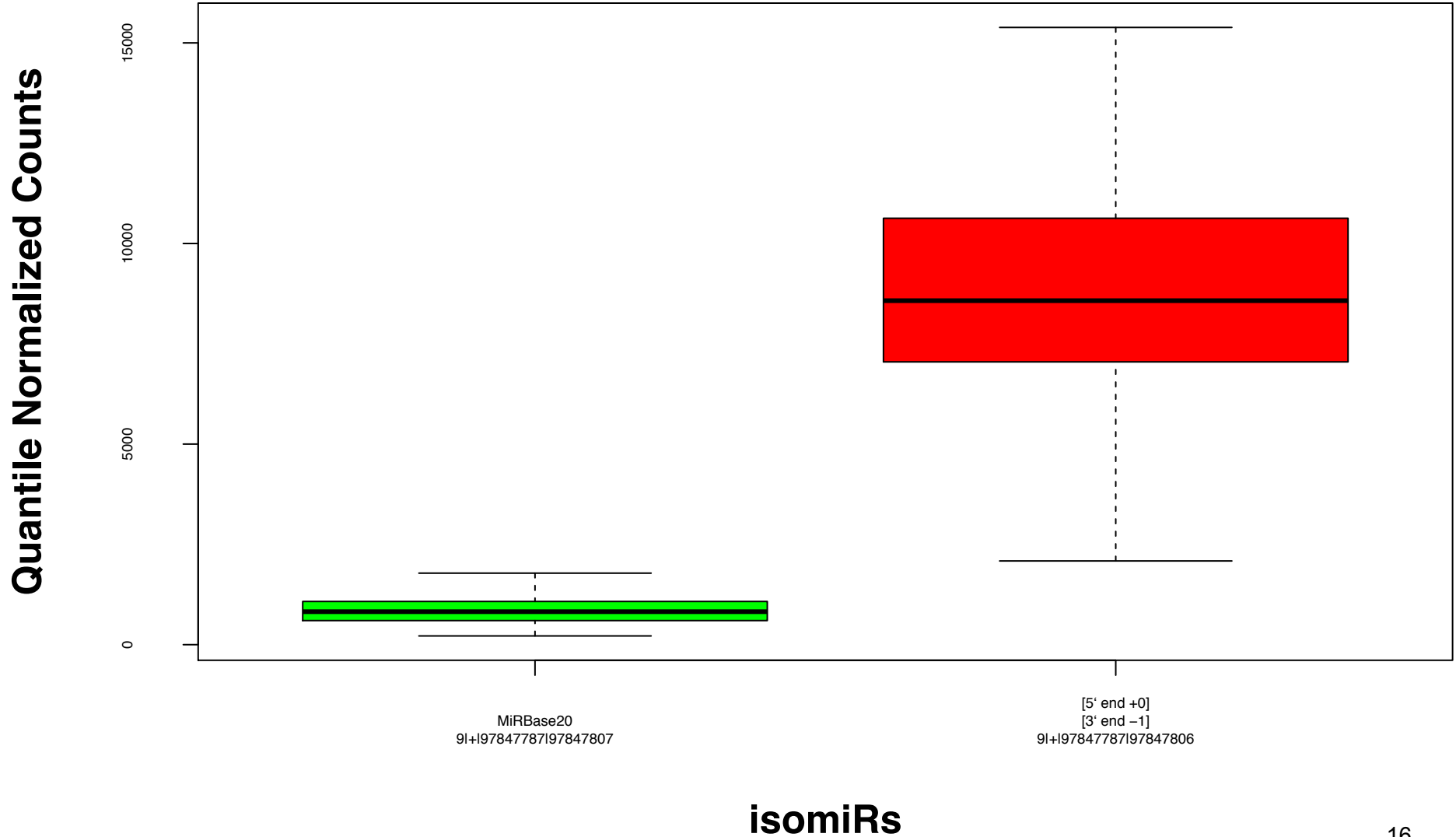
isomiRs

# MIMAT0000456=hsa-miR-186-5p=MI0000483



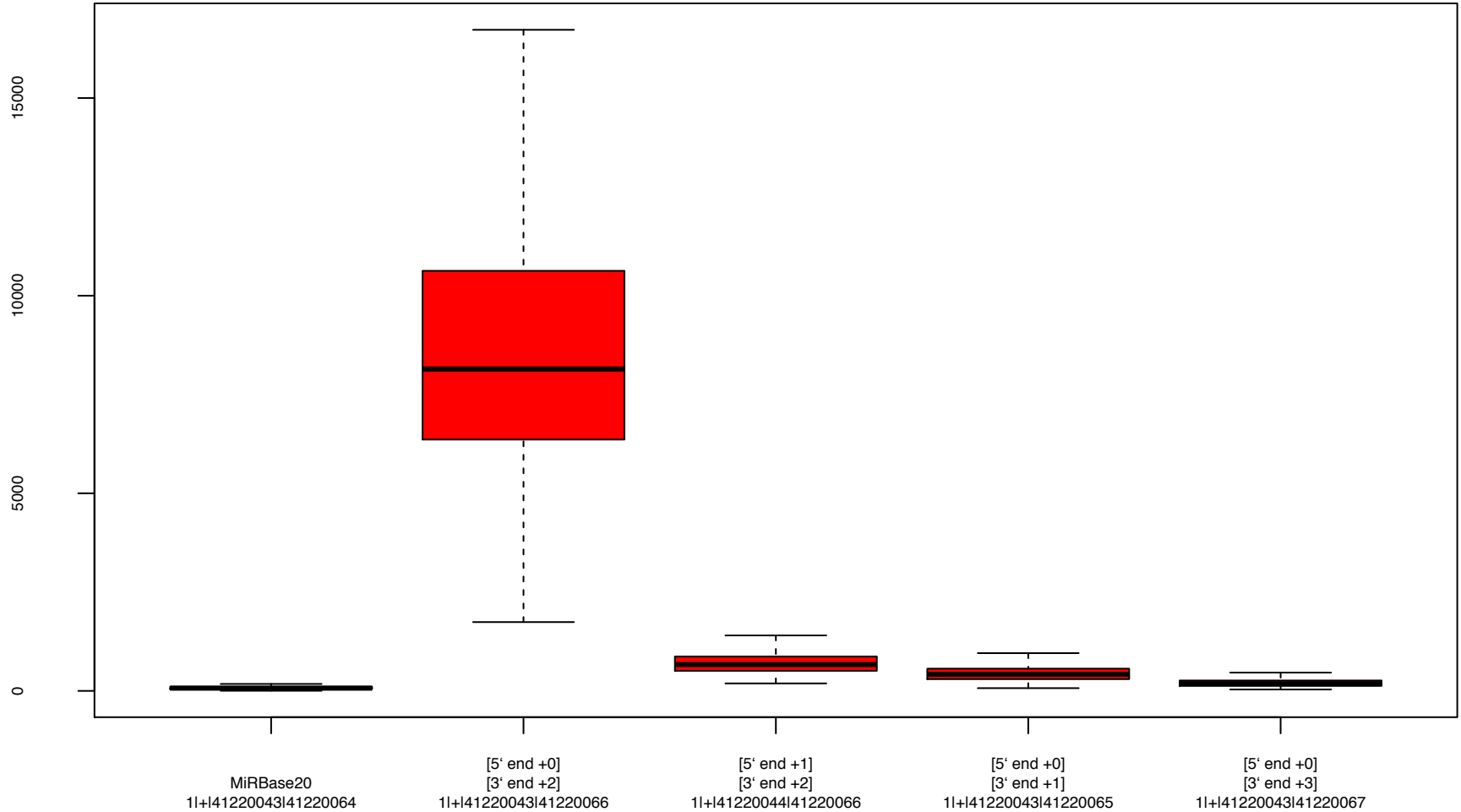


# MIMAT0000419=hsa-miR-27b-3p=MI0000440



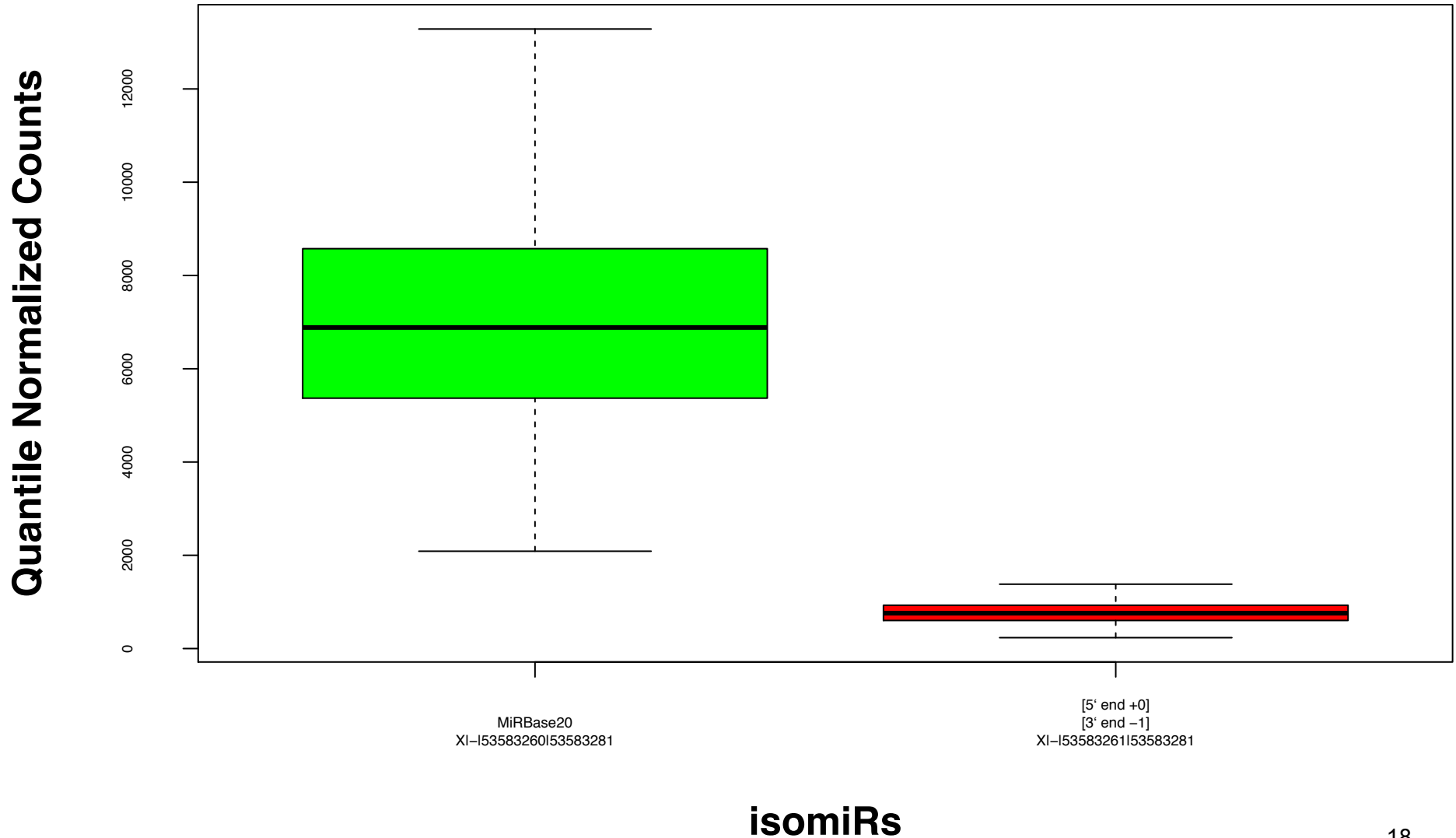
# MIMAT0000692=hsa-miR-30e-5p=MI0000749

Quantile Normalized Counts

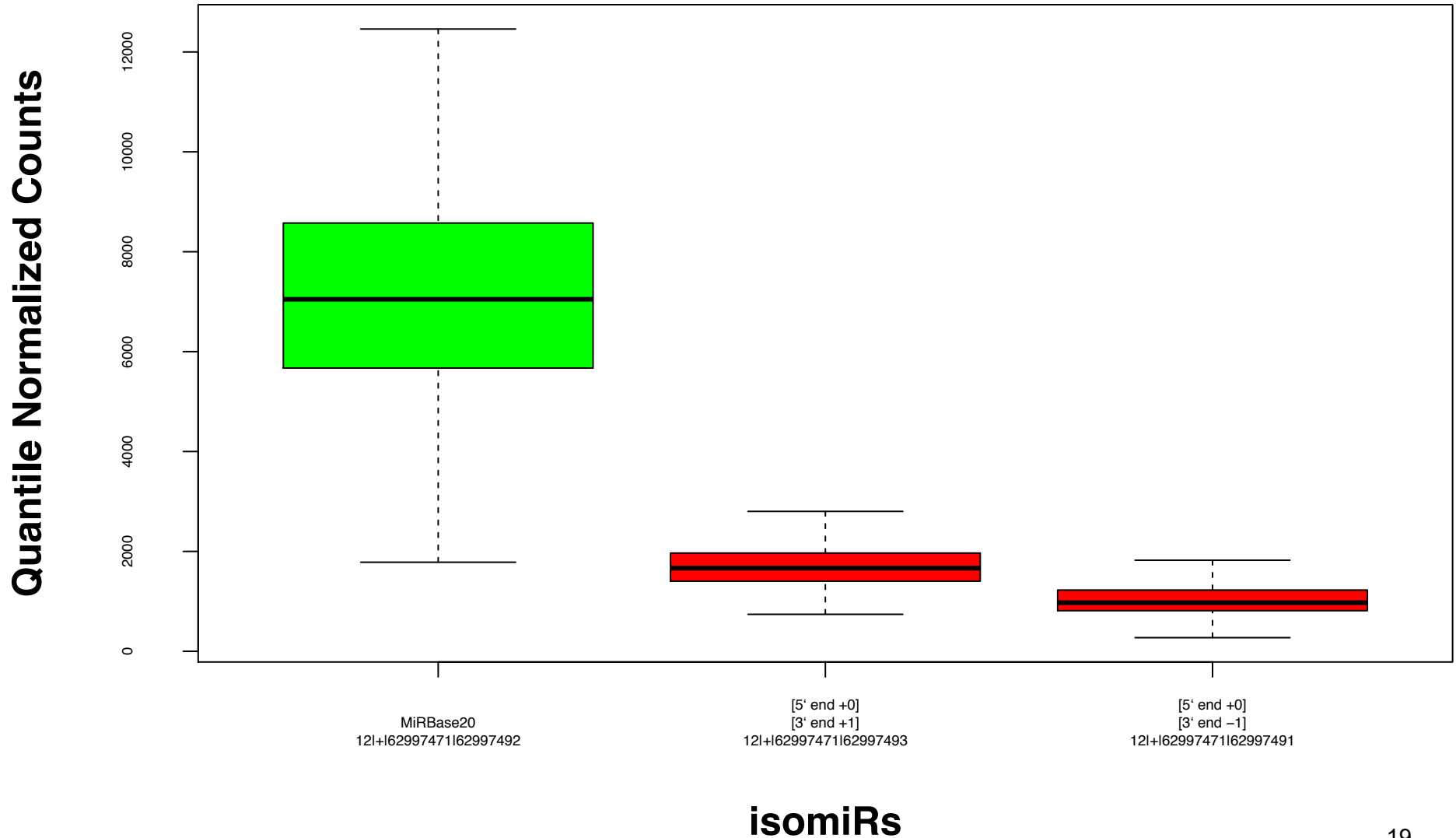


isomiRs

# MIMAT0000096=hsa-miR-98-5p=MI0000100

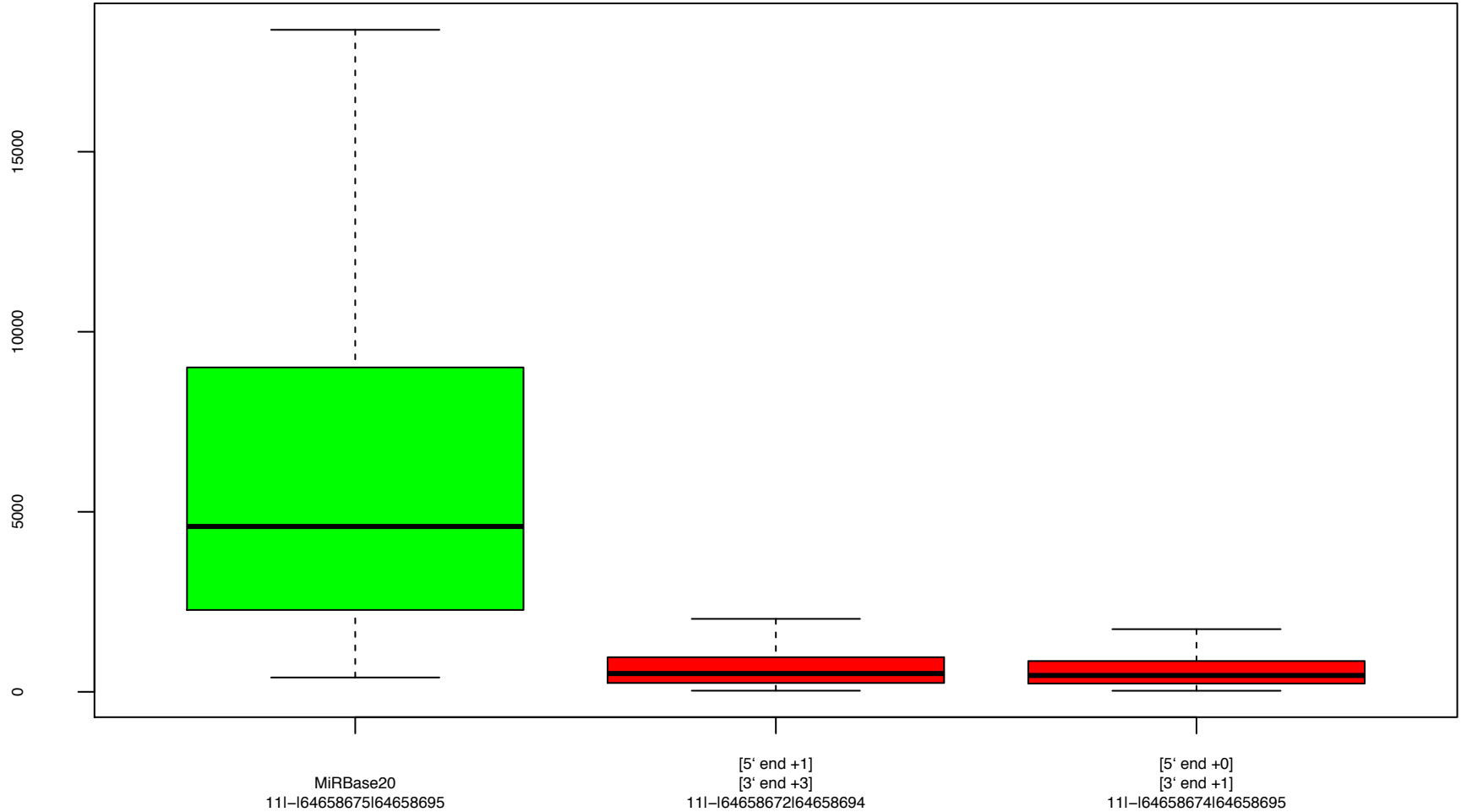


# MIMAT0000415=hsa-let-7i-5p=MI0000434



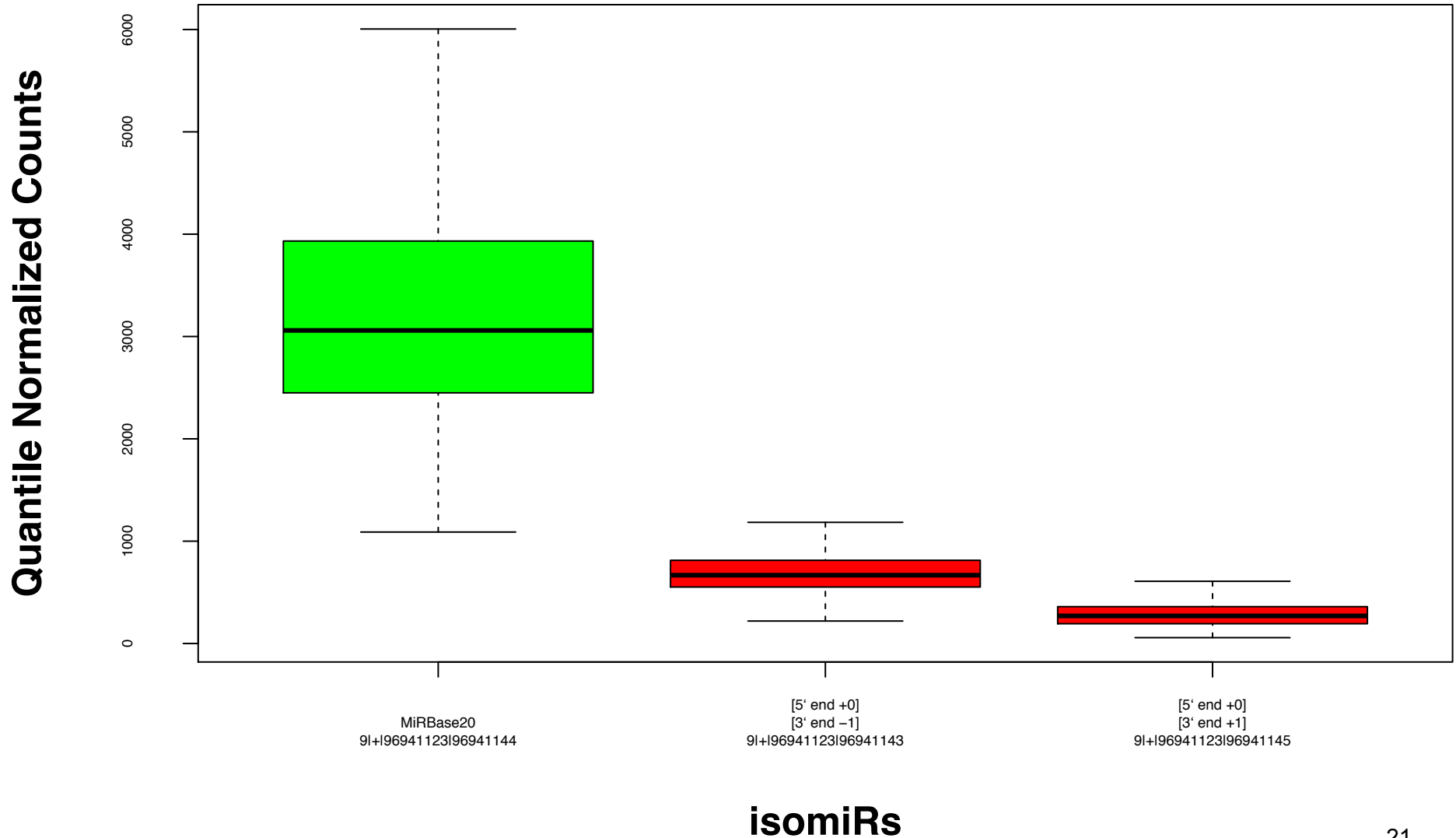
# MIMAT0000222=hsa-miR-192-5p=MI0000234

Quantile Normalized Counts

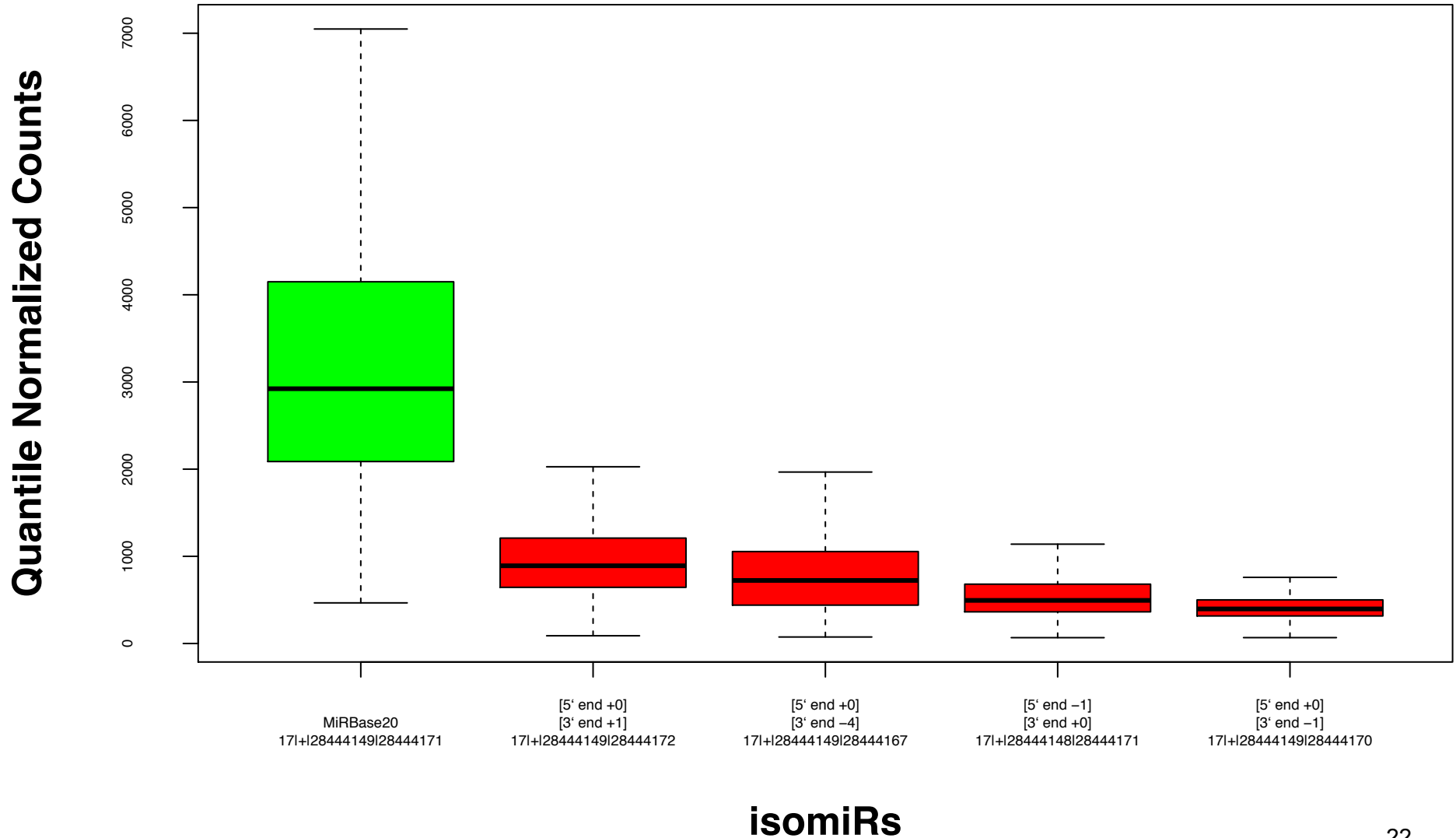


isomiRs

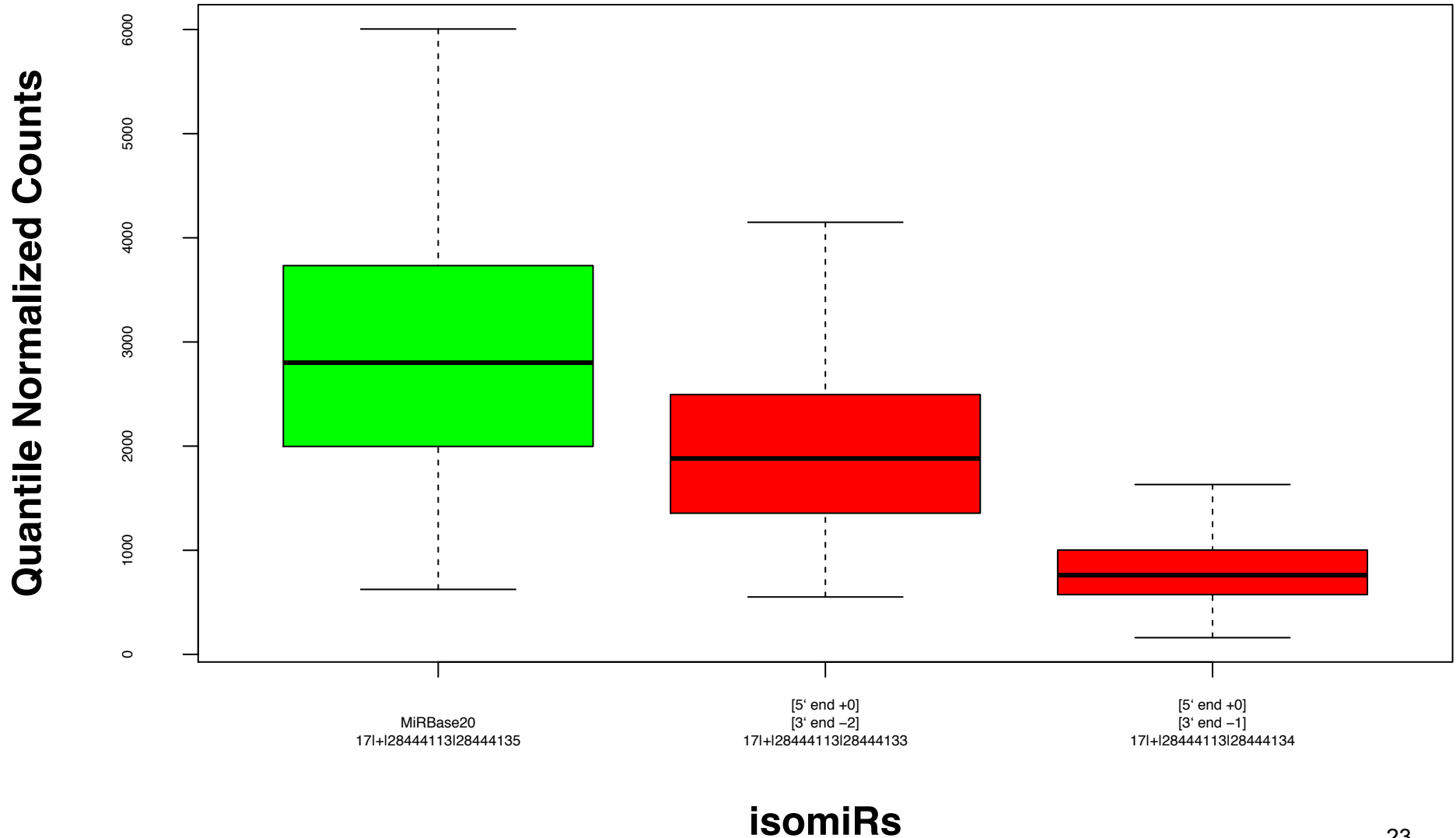
# MIMAT0000065=hsa-let-7d-5p=MI0000065



# MIMAT0001340=hsa-miR-423-3p=MI0001445

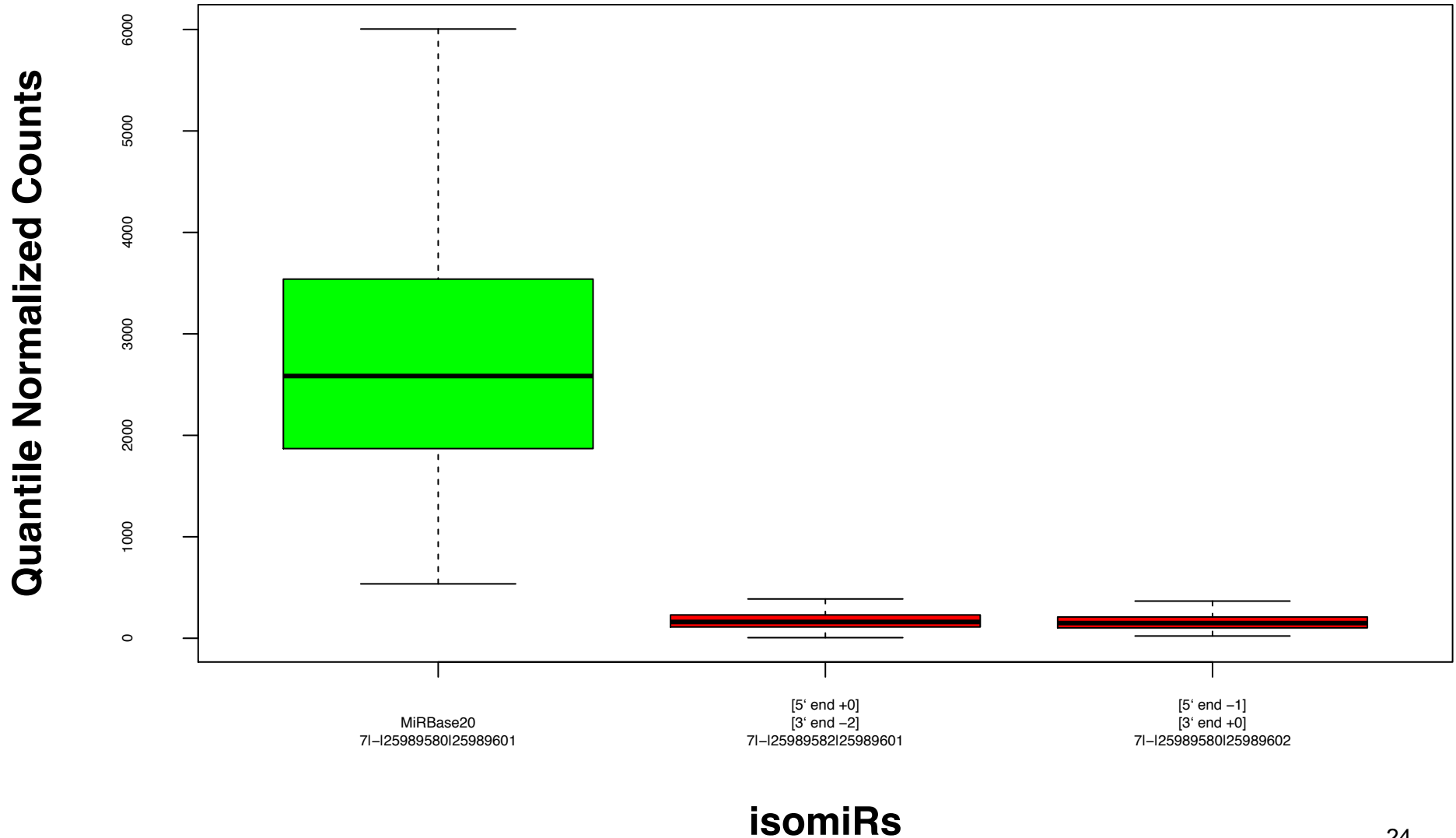


# MIMAT0004748=hsa-miR-423-5p=MI0001445



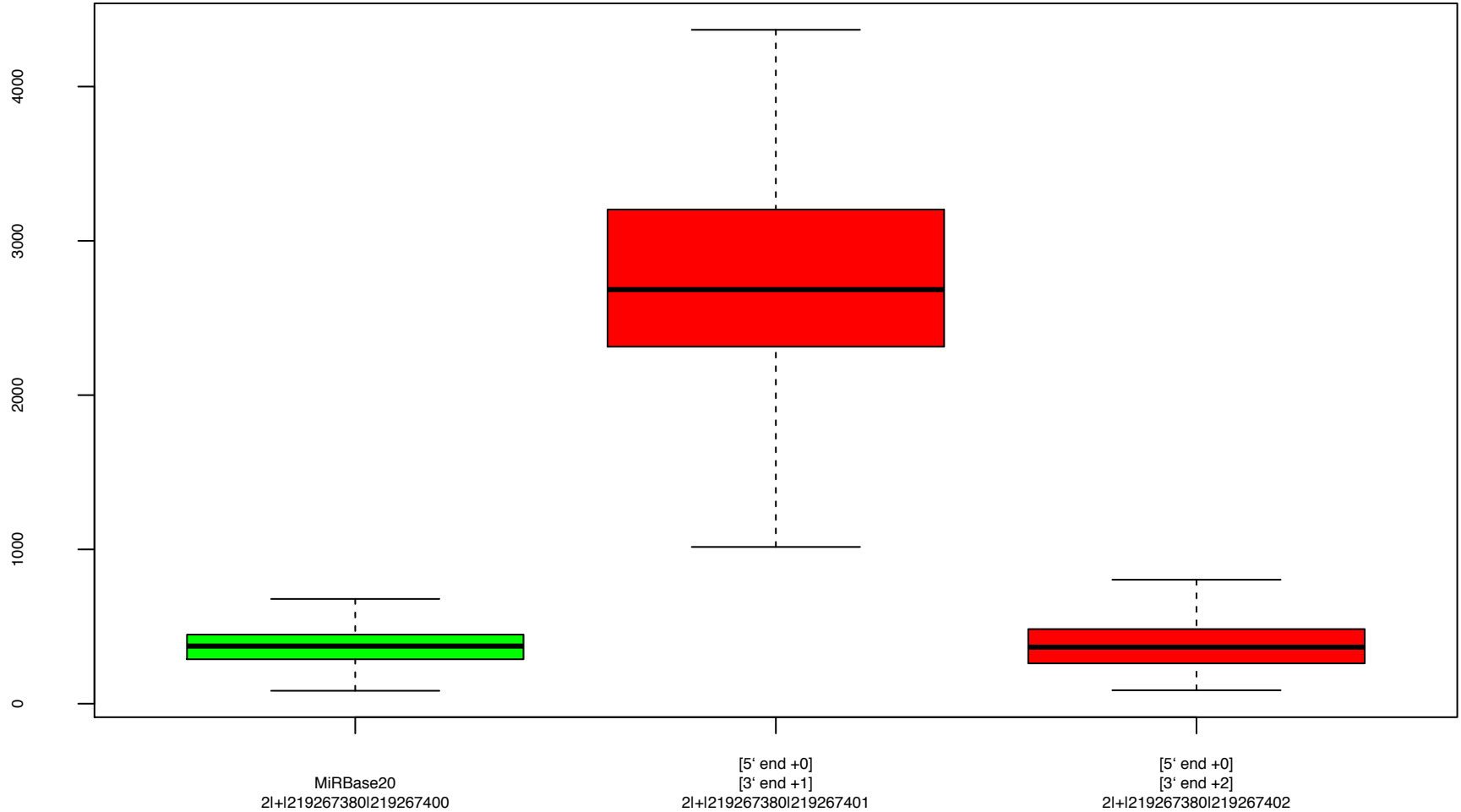


# MIMAT0004549=hsa-miR-148a-5p=MI0000253



# MIMAT0000083=hsa-miR-26b-5p=MI0000084

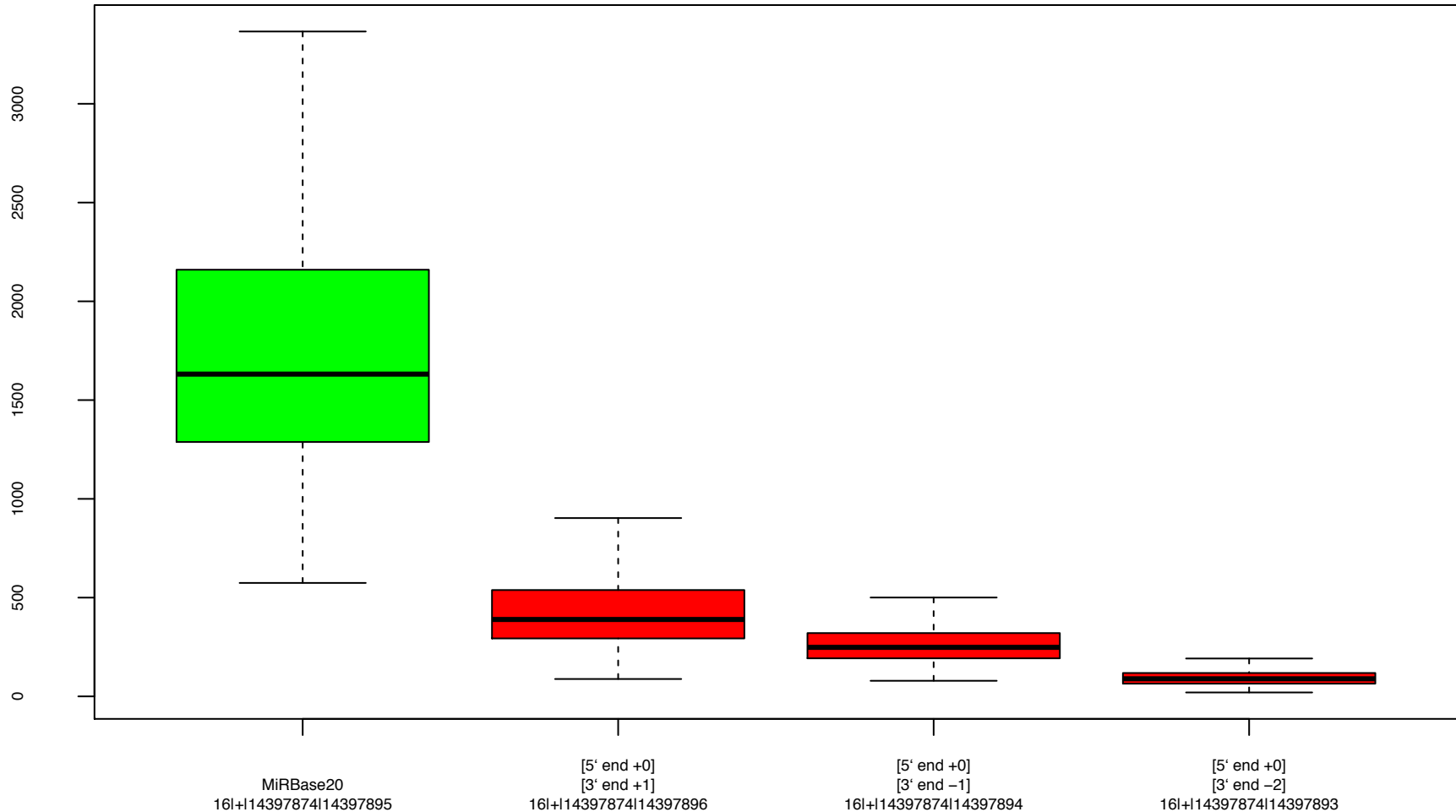
Quantile Normalized Counts



isomiRs

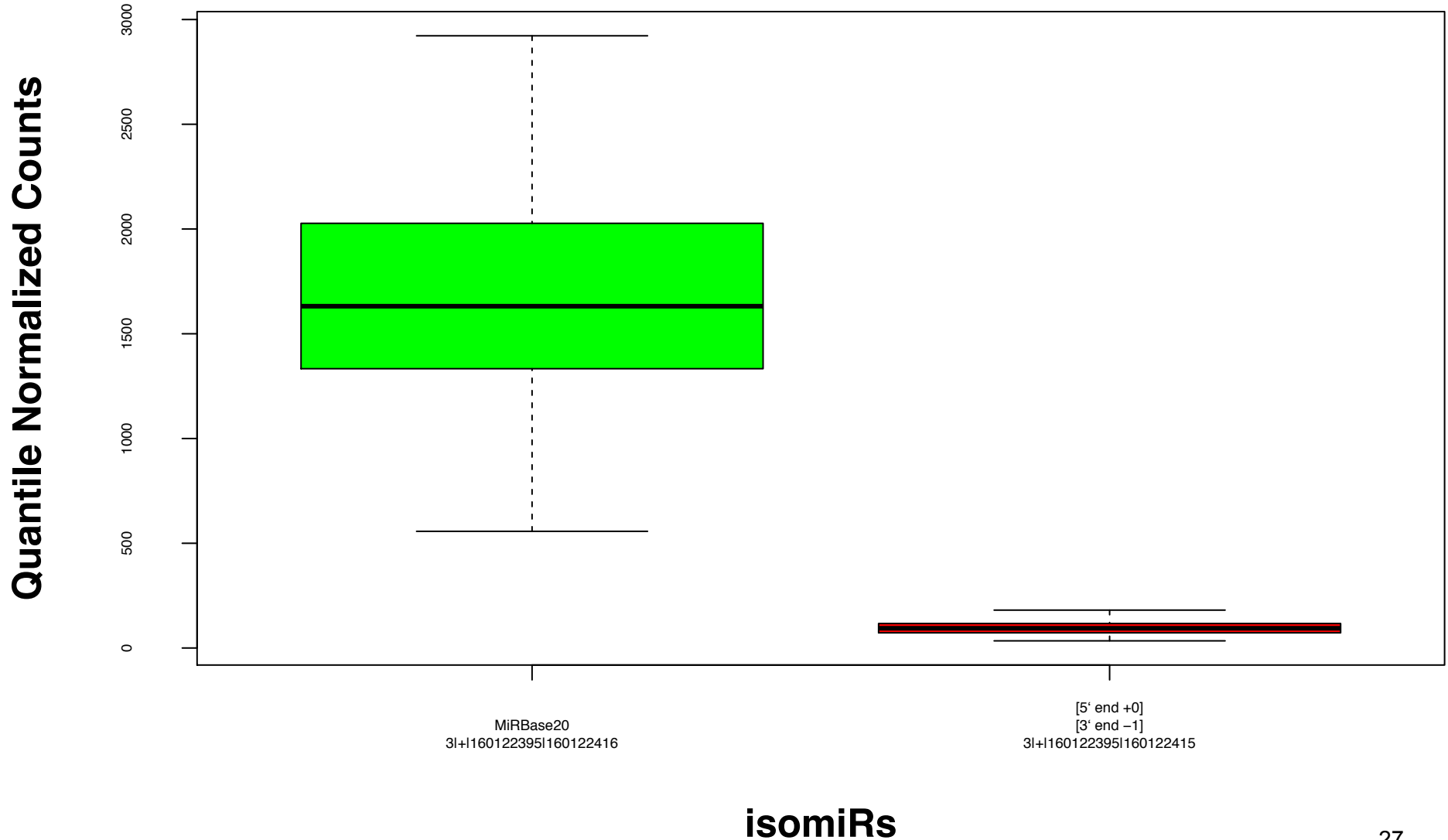
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Quantile Normalized Counts



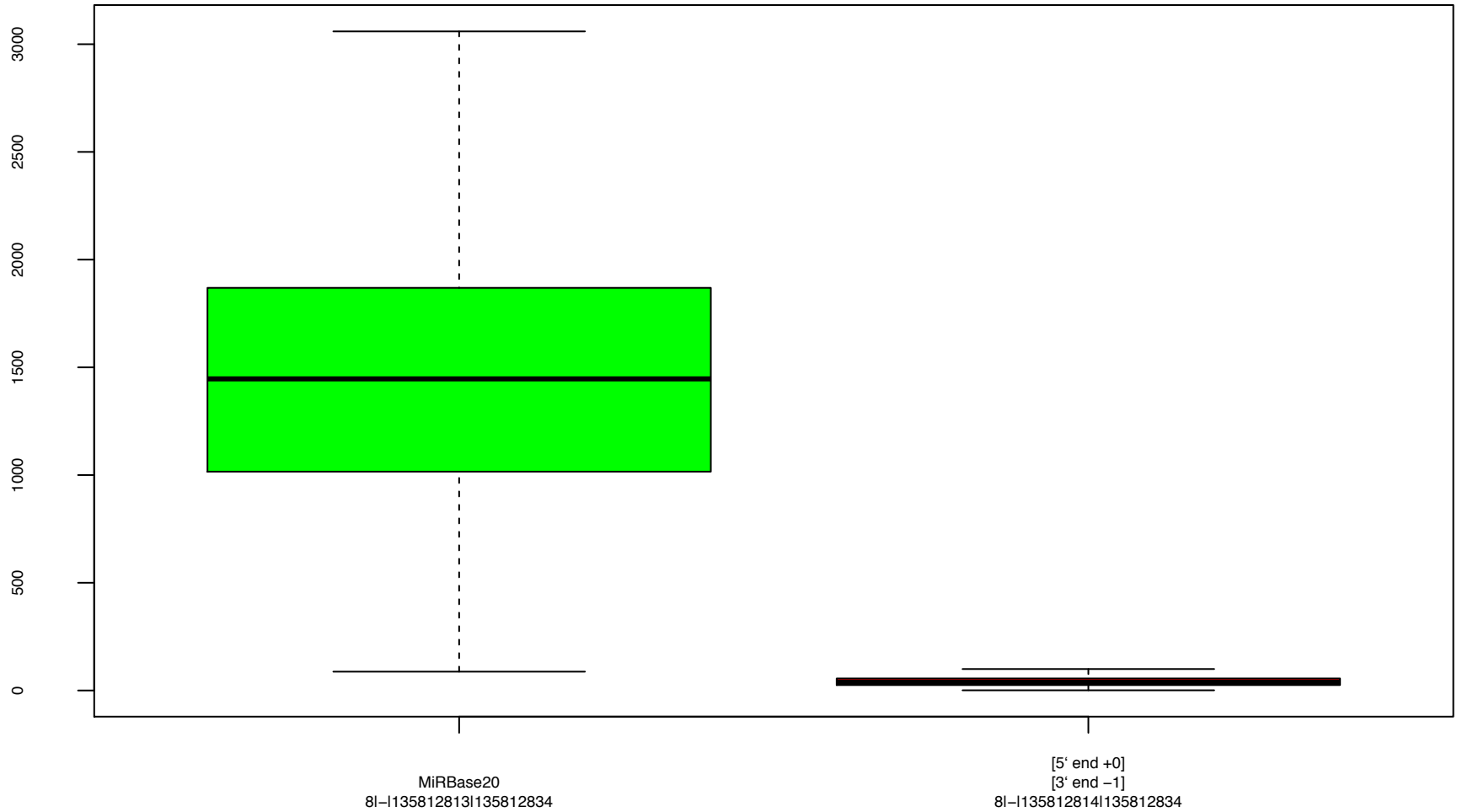
isomiRs

# MIMAT0000417=hsa-miR-15b-5p=MI0000438



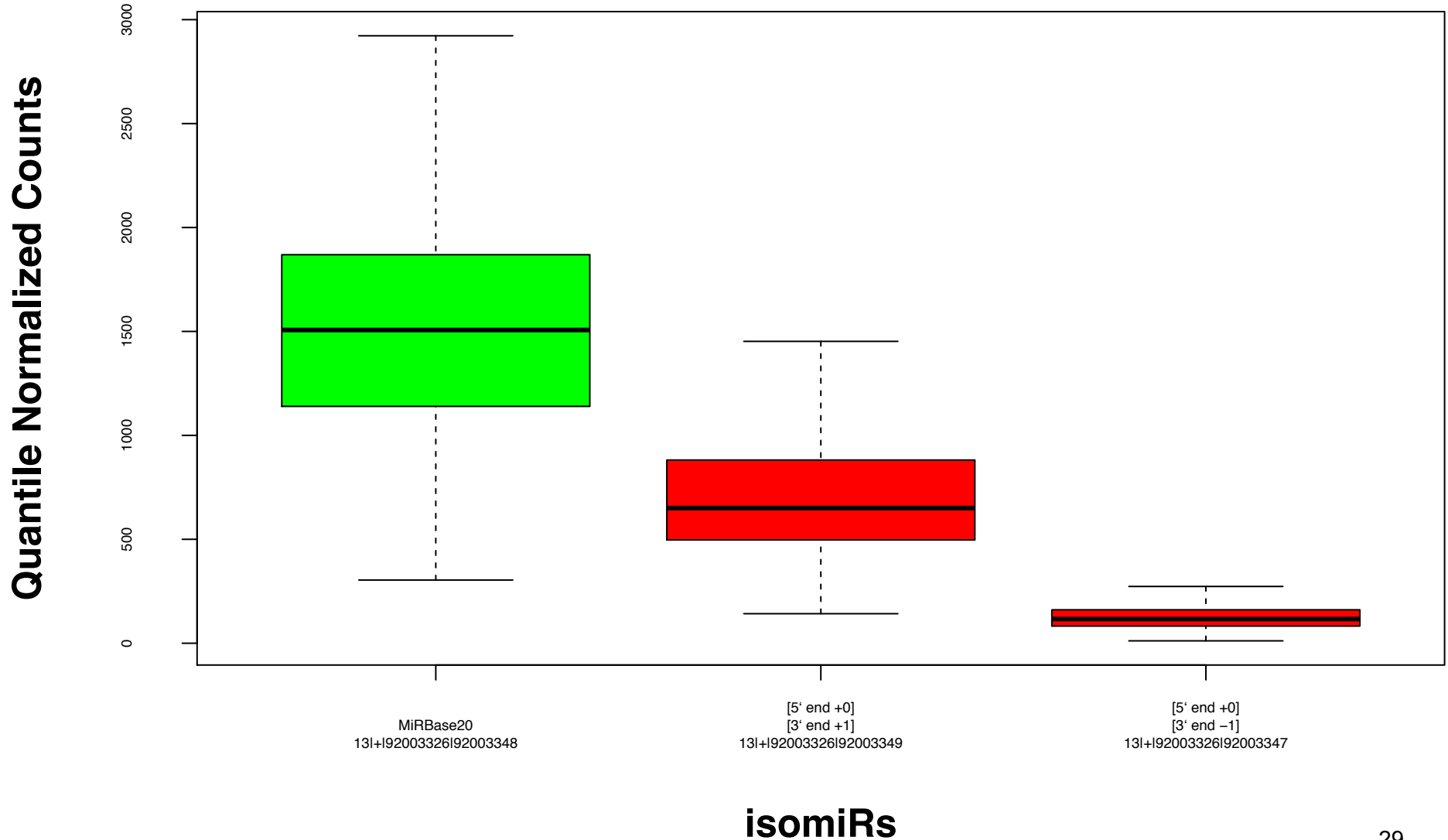
# MIMAT0000420=hsa-miR-30b-5p=MI0000441

Quantile Normalized Counts

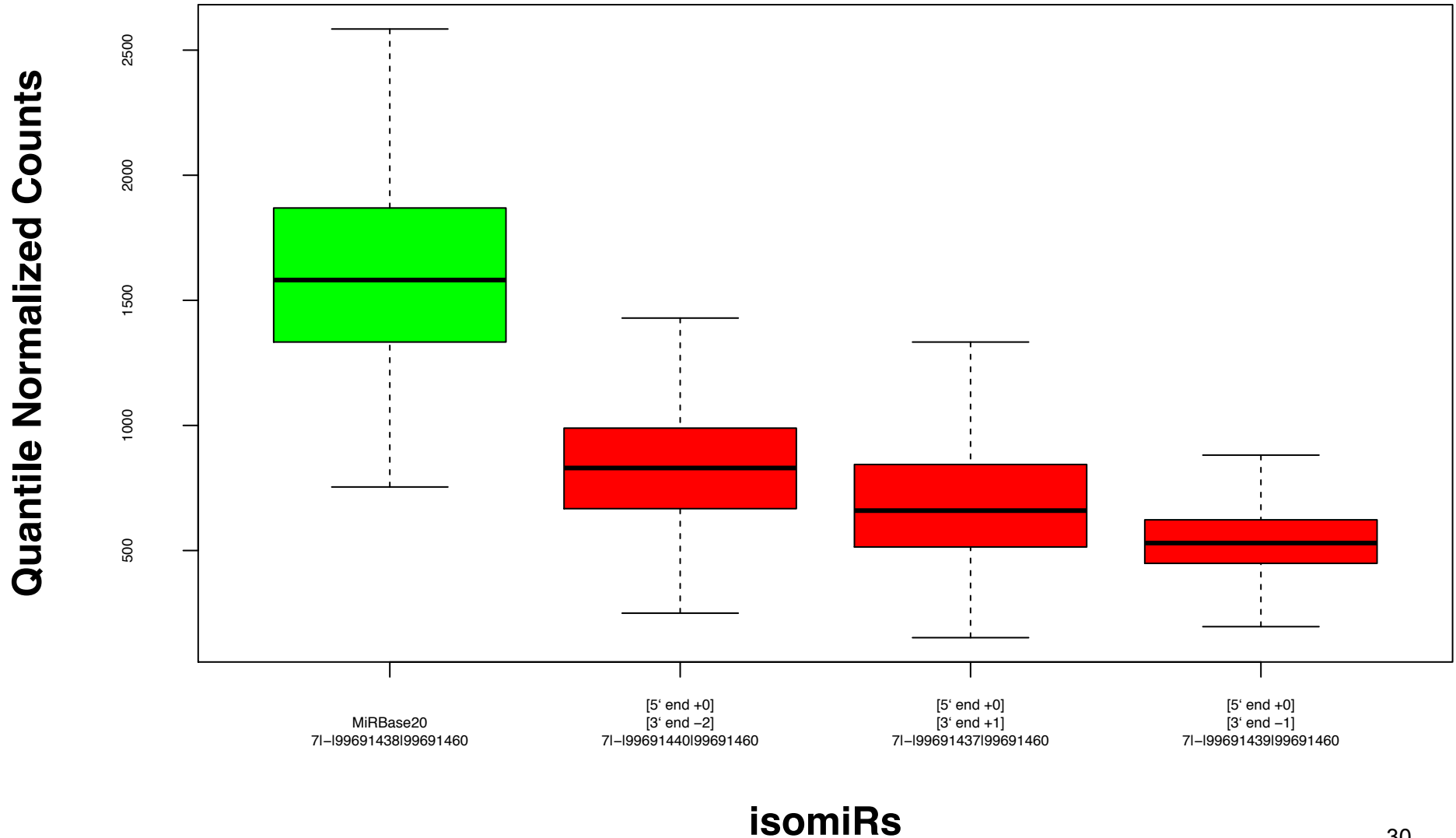


isomiRs

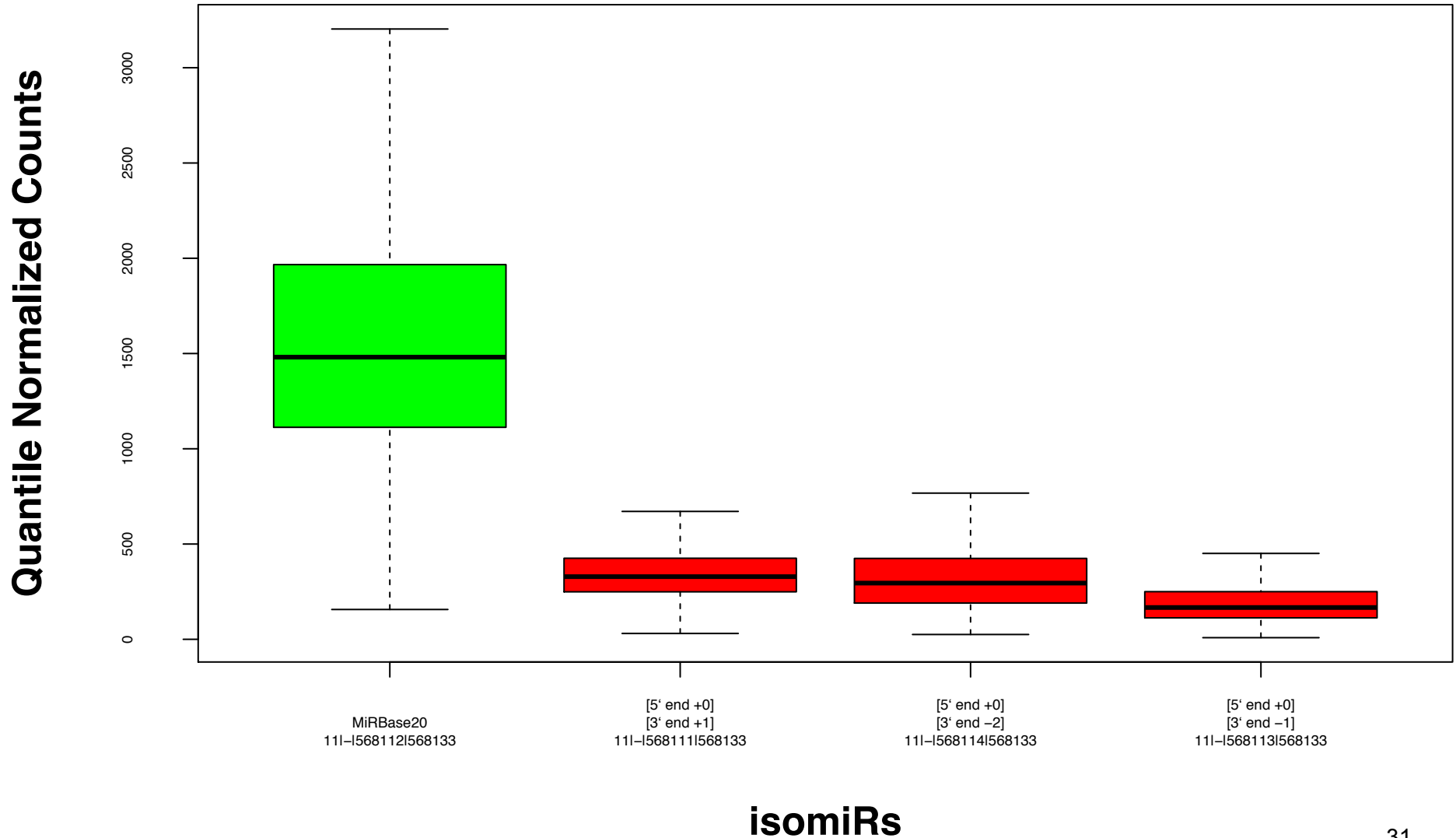
# MIMAT0000075=hsa-miR-20a-5p=MI0000076



# MIMAT0000093=hsa-miR-93-5p=MI0000095

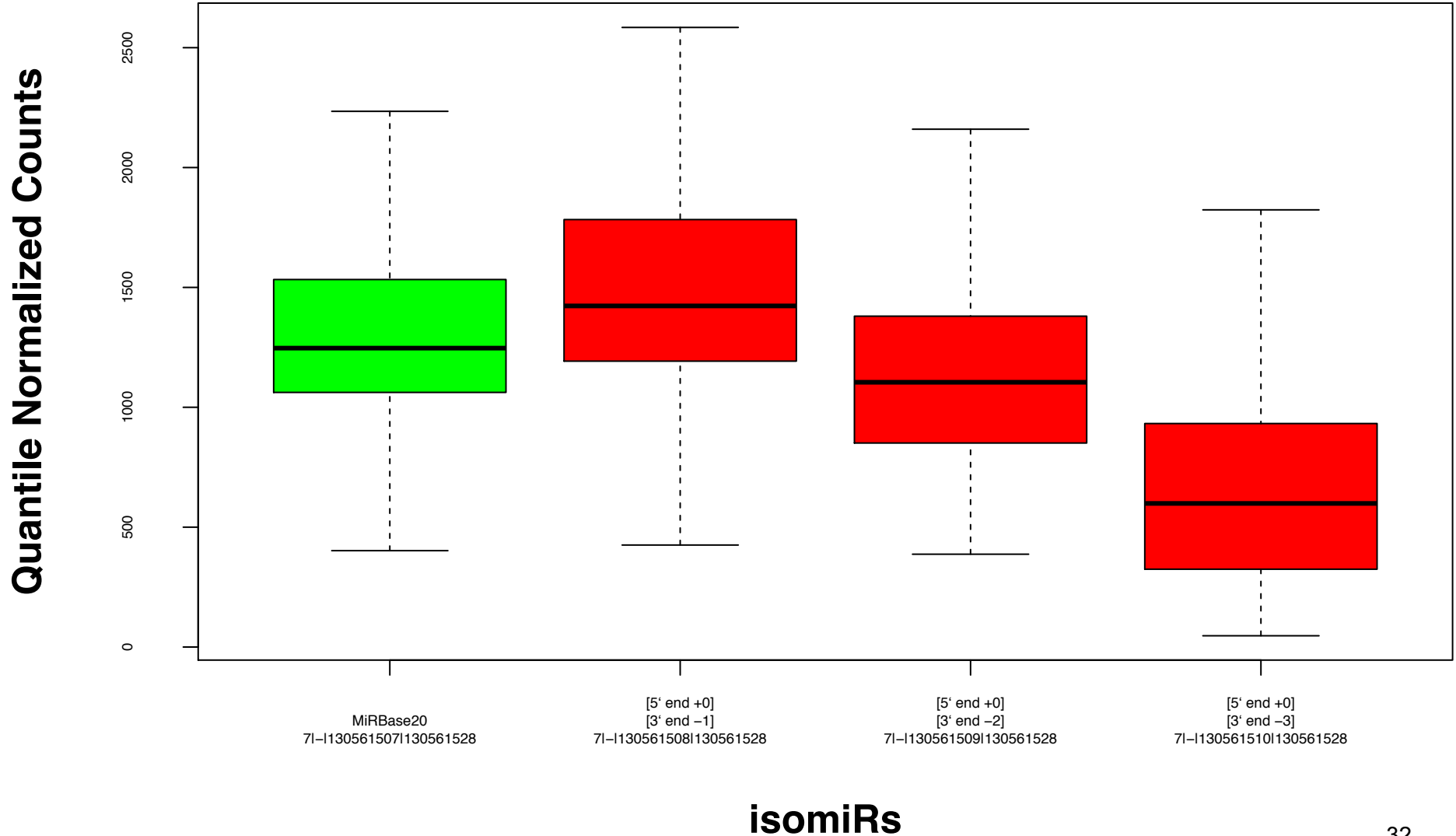


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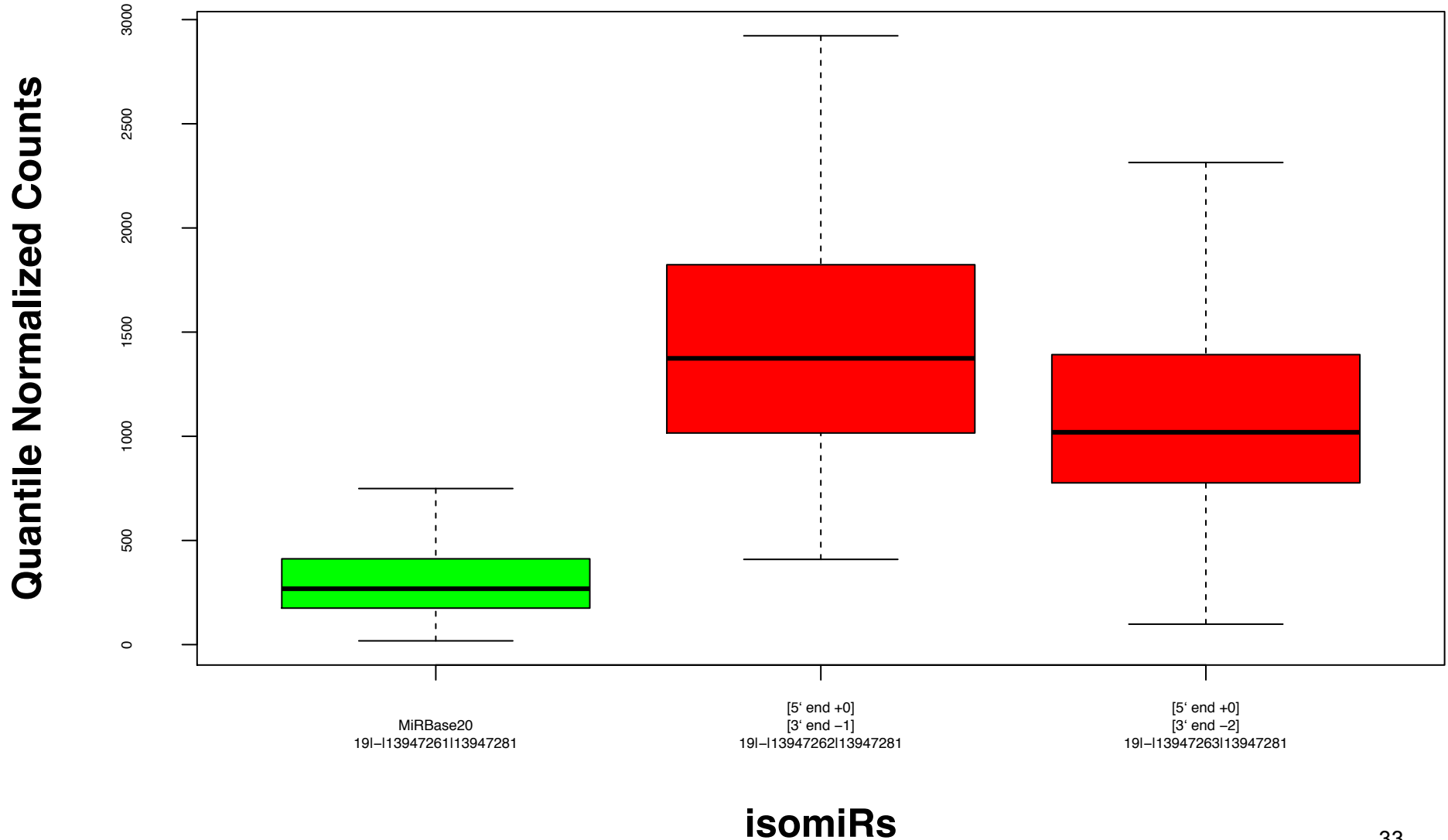




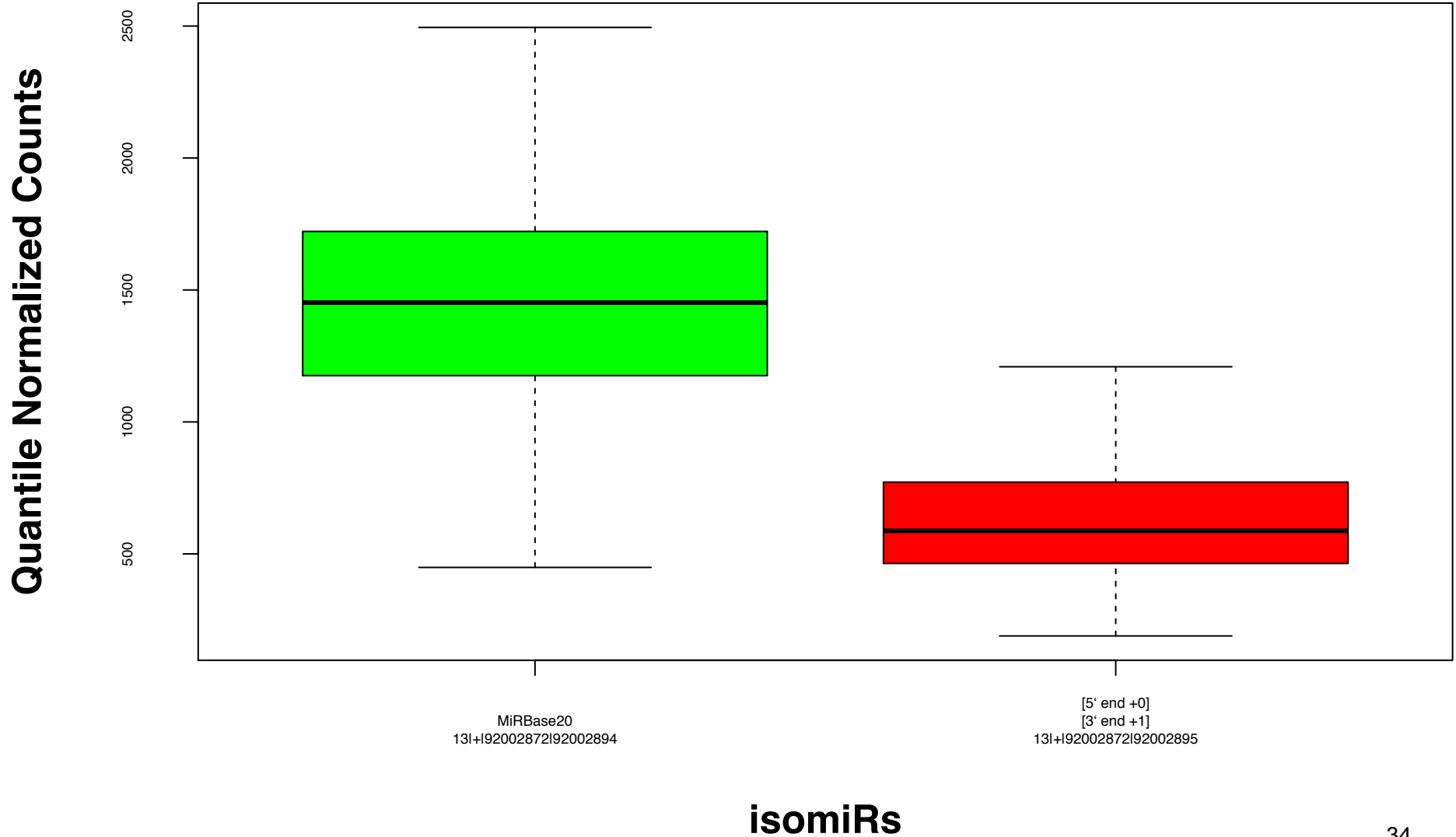
# MIMAT0000086=hsa-miR-29a-3p=MI0000087



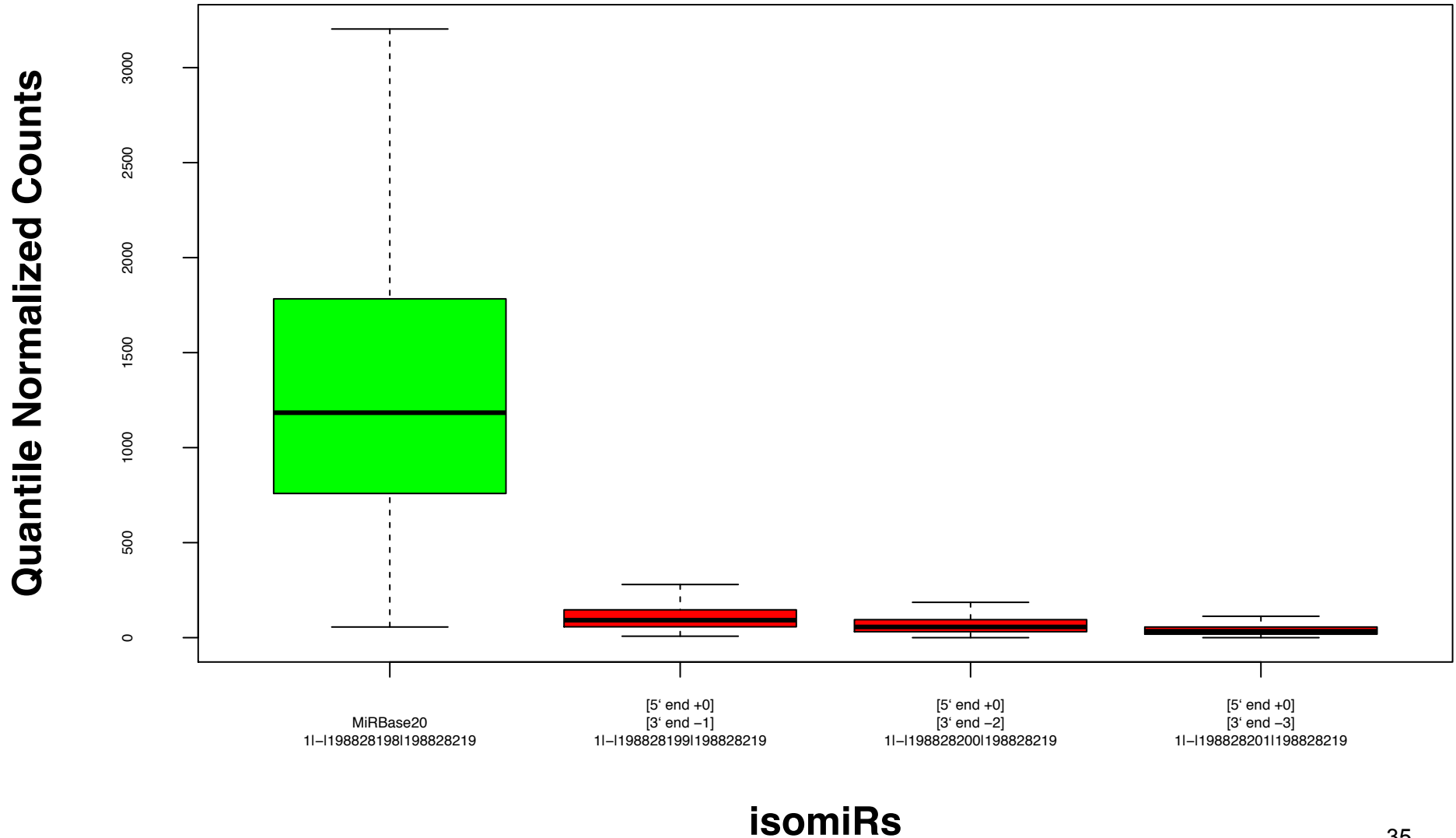
# MIMAT0000084=hsa-miR-27a-3p=MI0000085



# MIMAT0000070=hsa-miR-17-5p=MI0000071

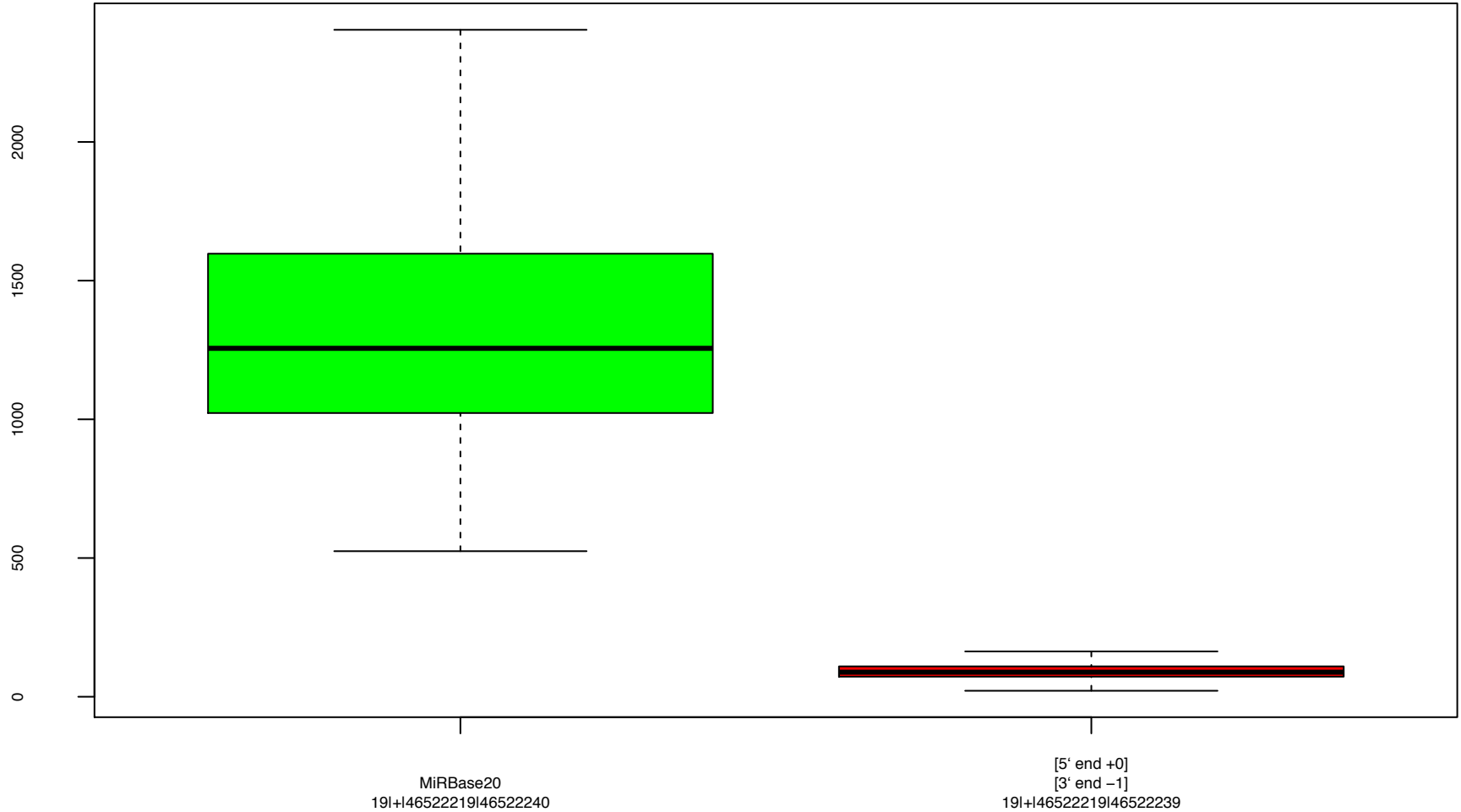


# MIMAT0000270=hsa-miR-181a-3p=MI0000289



# MIMAT0003886=hsa-miR-769-5p=MI0003834

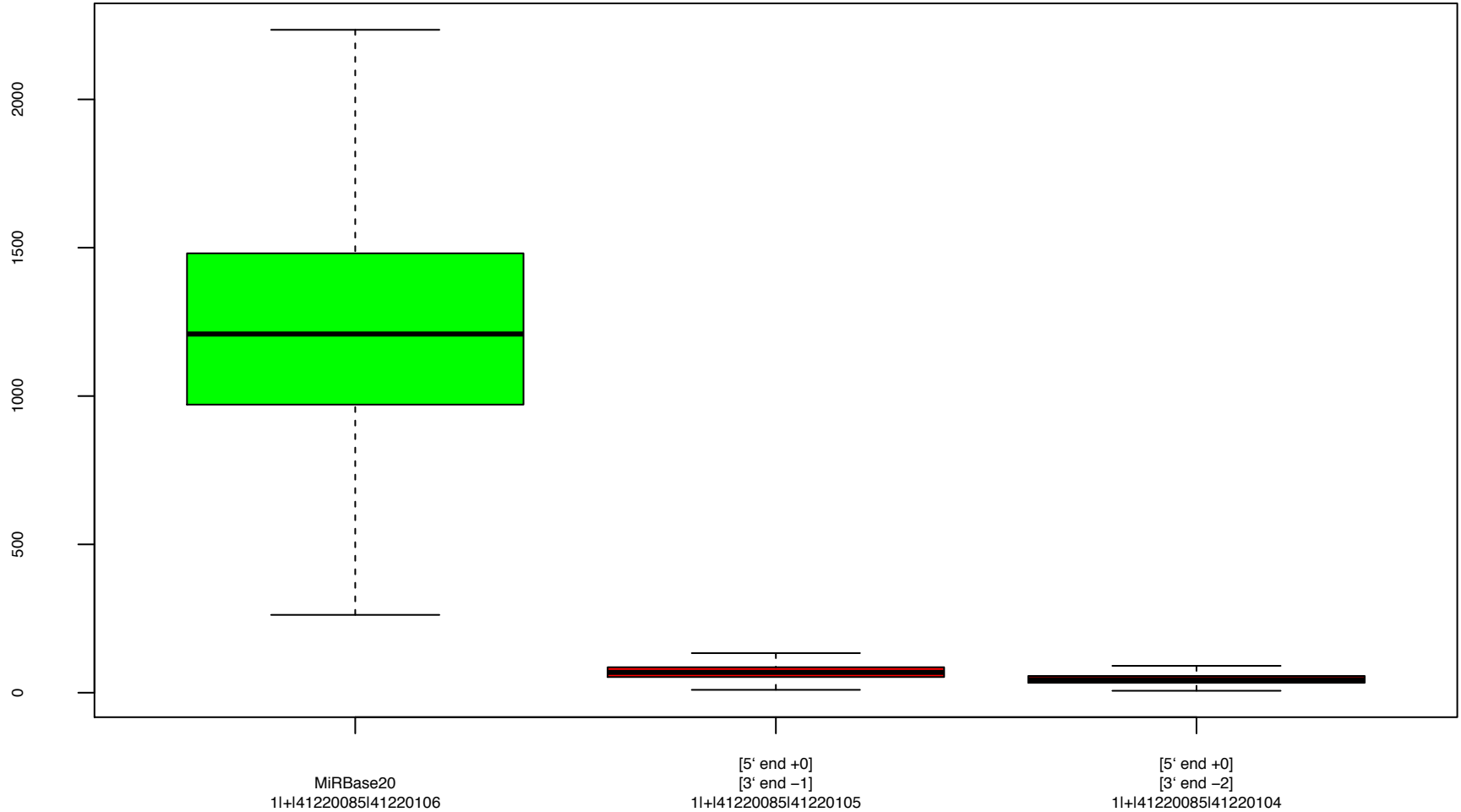
Quantile Normalized Counts



isomiRs

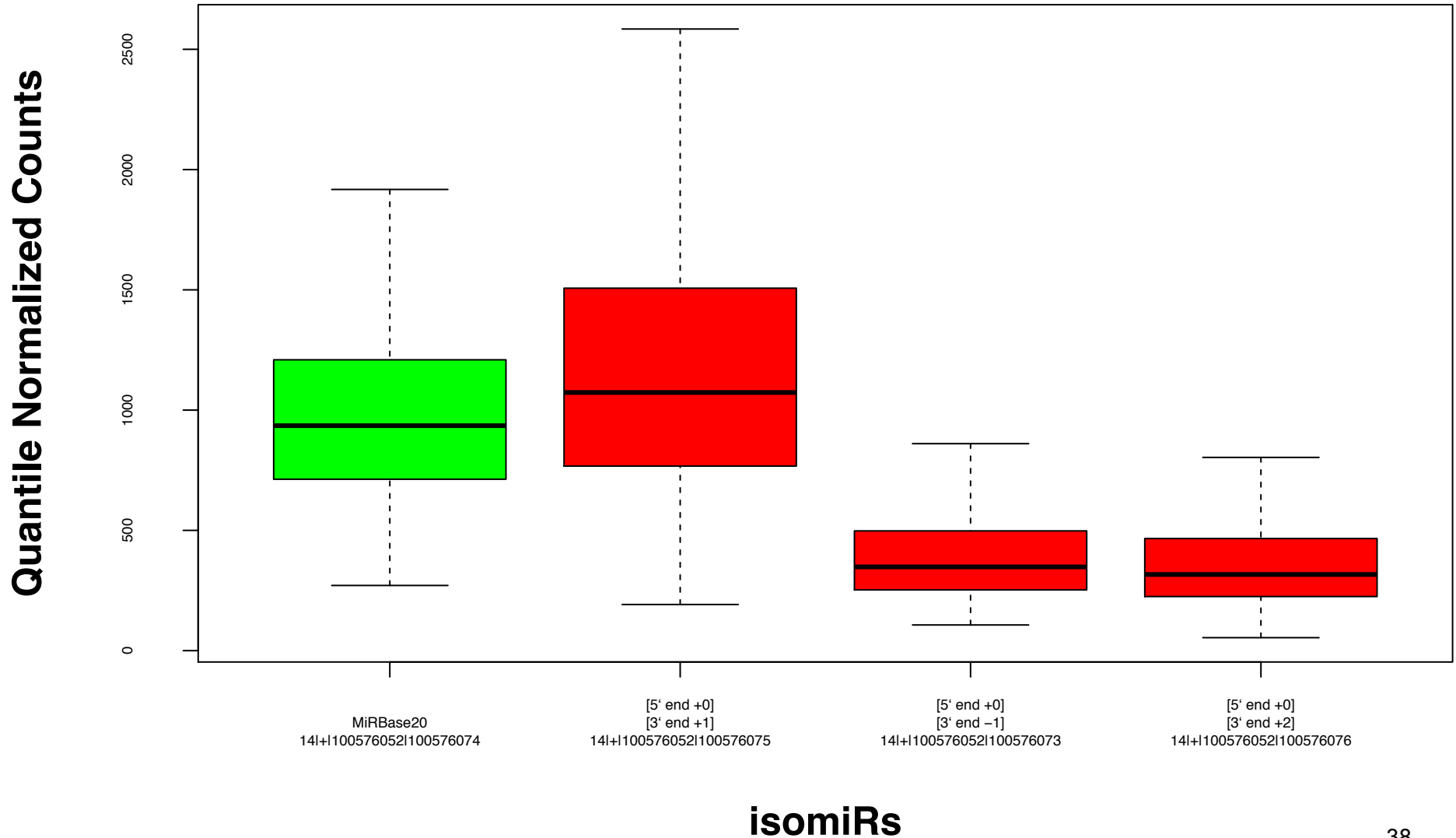
# MIMAT0000693=hsa-miR-30e-3p=MI0000749

Quantile Normalized Counts



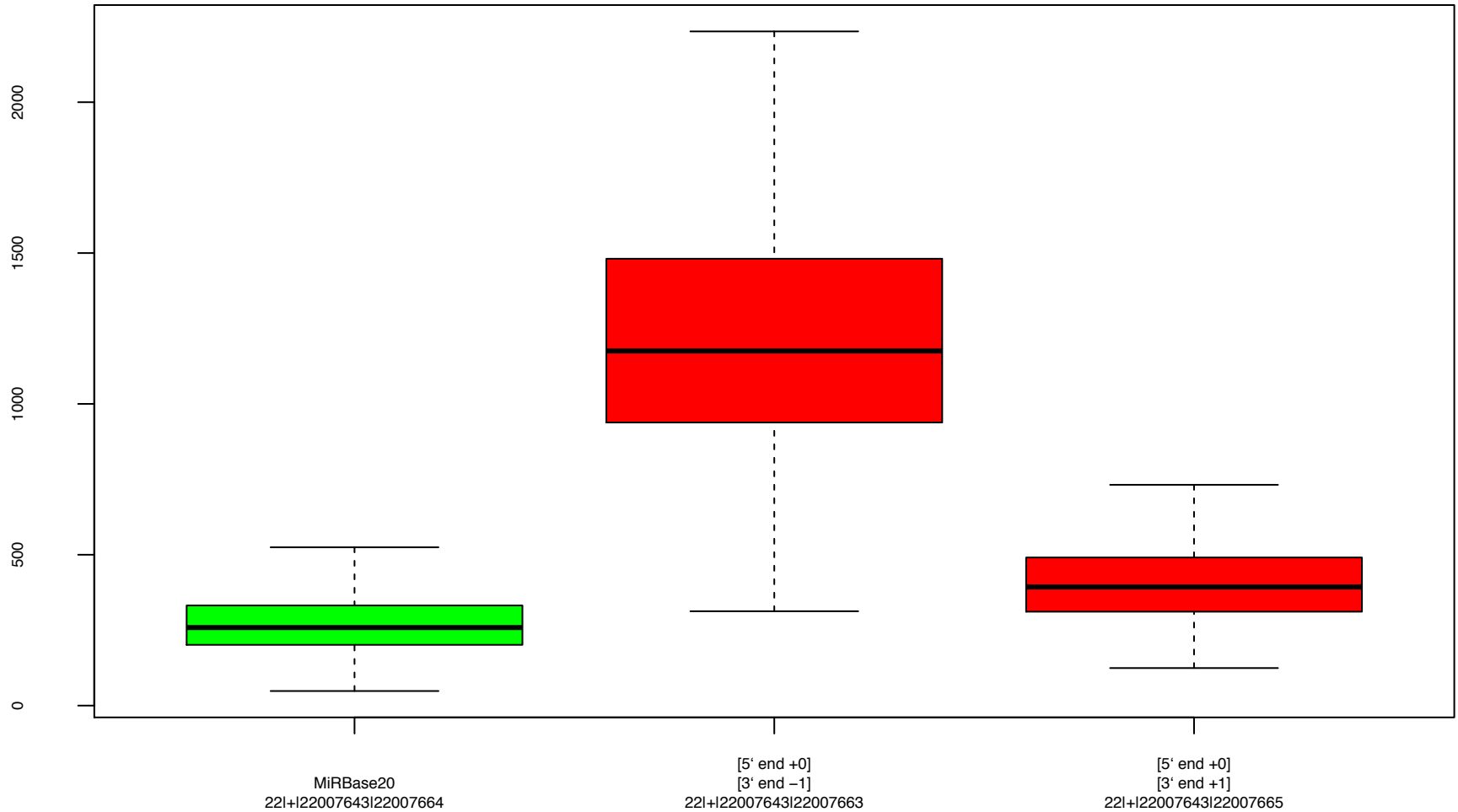
isomiRs

# MIMAT0000753=hsa-miR-342-3p=MI0000805



# MIMAT0000691=hsa-miR-130b-3p=MI0000748

Quantile Normalized Counts

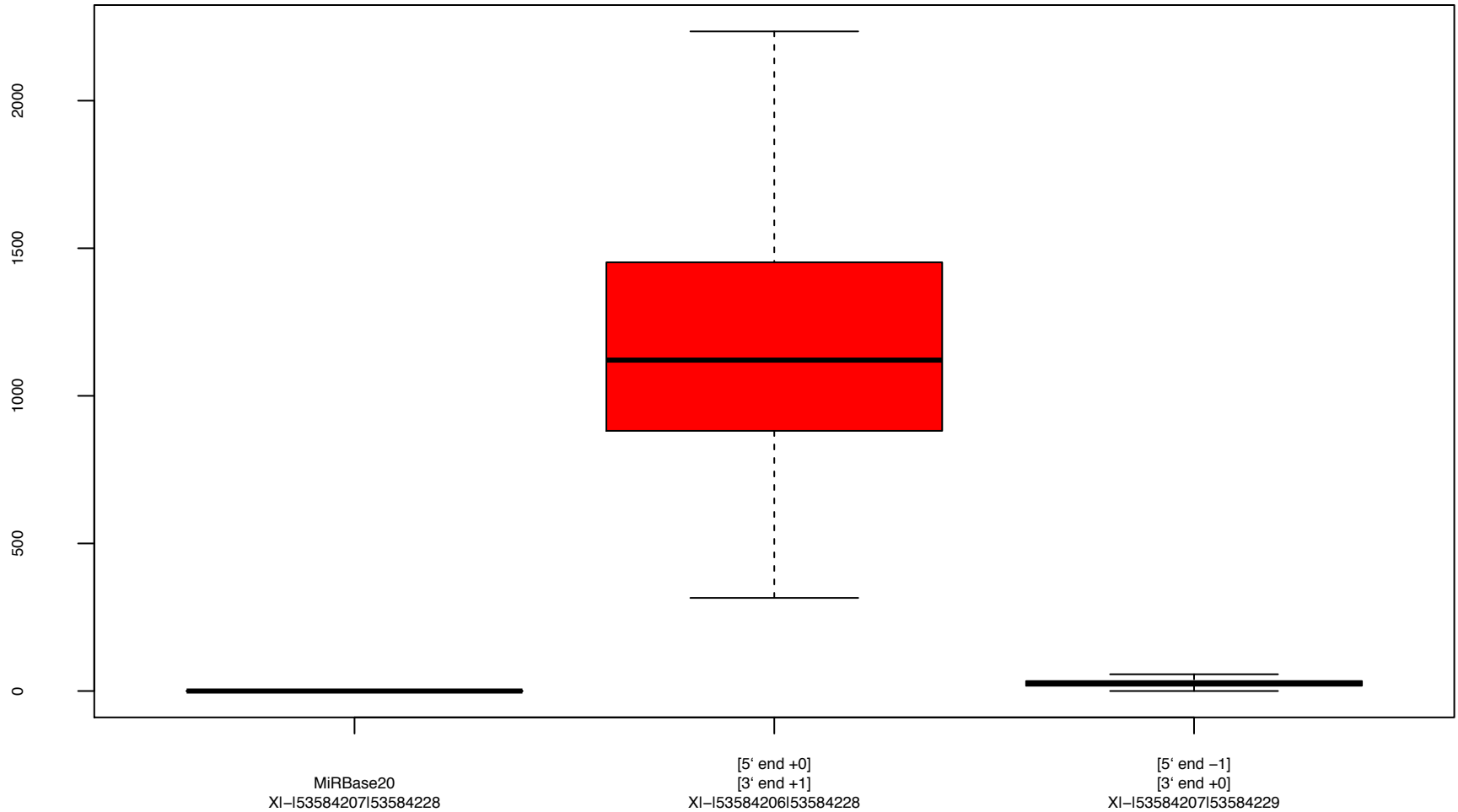


isomiRs



# MIMAT0000067\_1=hsa-let-7f-5p=MI0000068

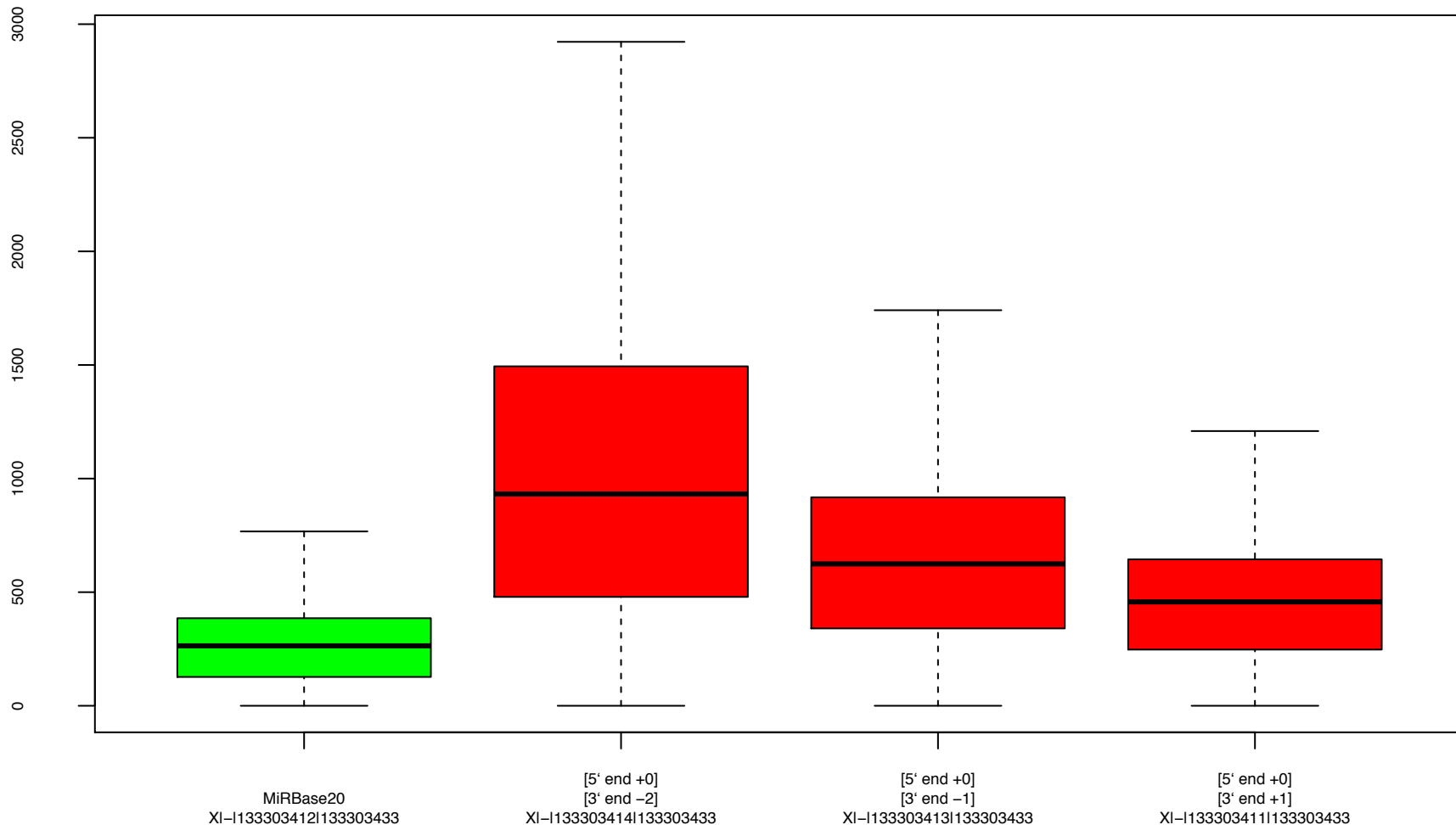
Quantile Normalized Counts



isomiRs

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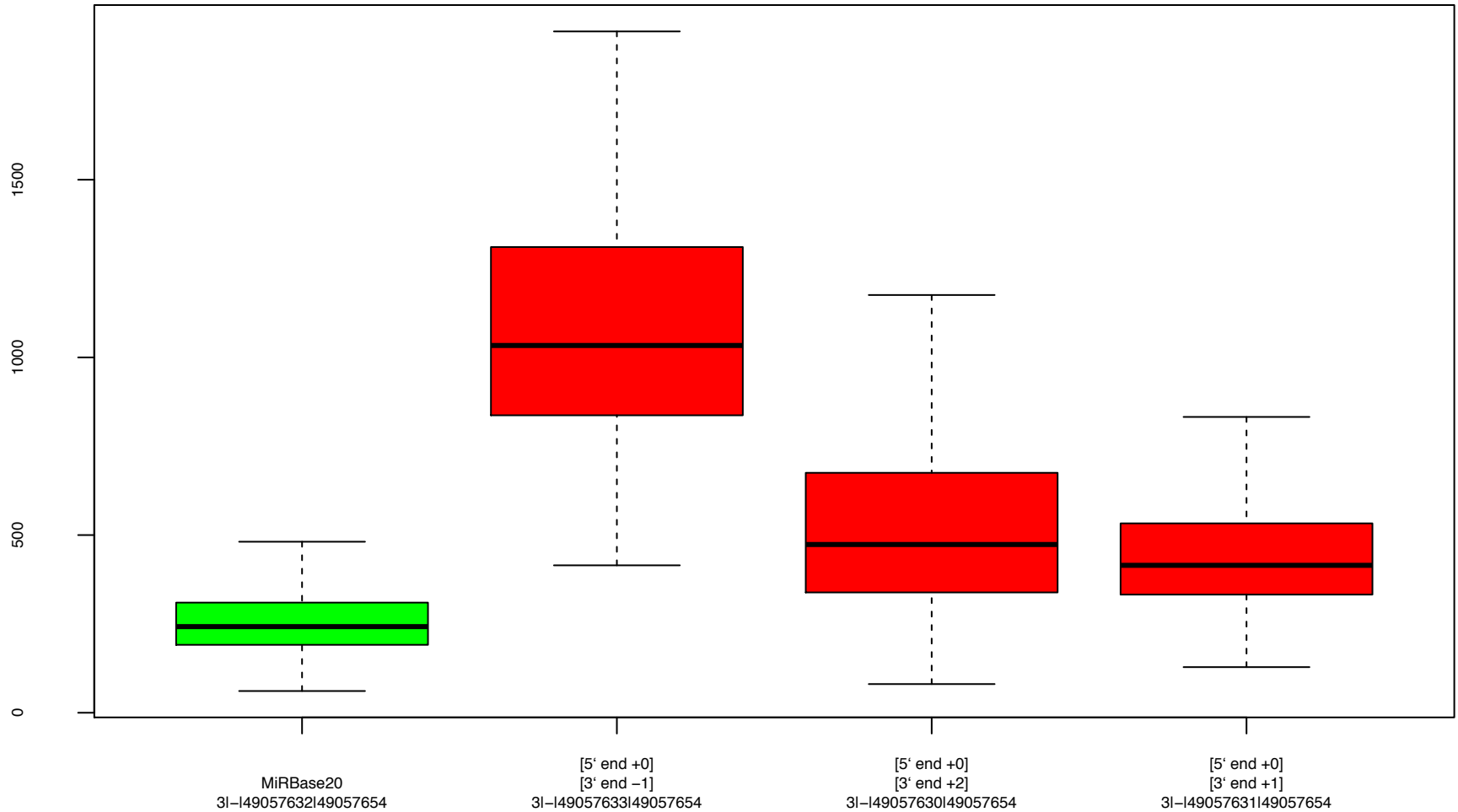
Quantile Normalized Counts



isomiRs

# MIMAT0003393=hsa-miR-425-5p=MI0001448

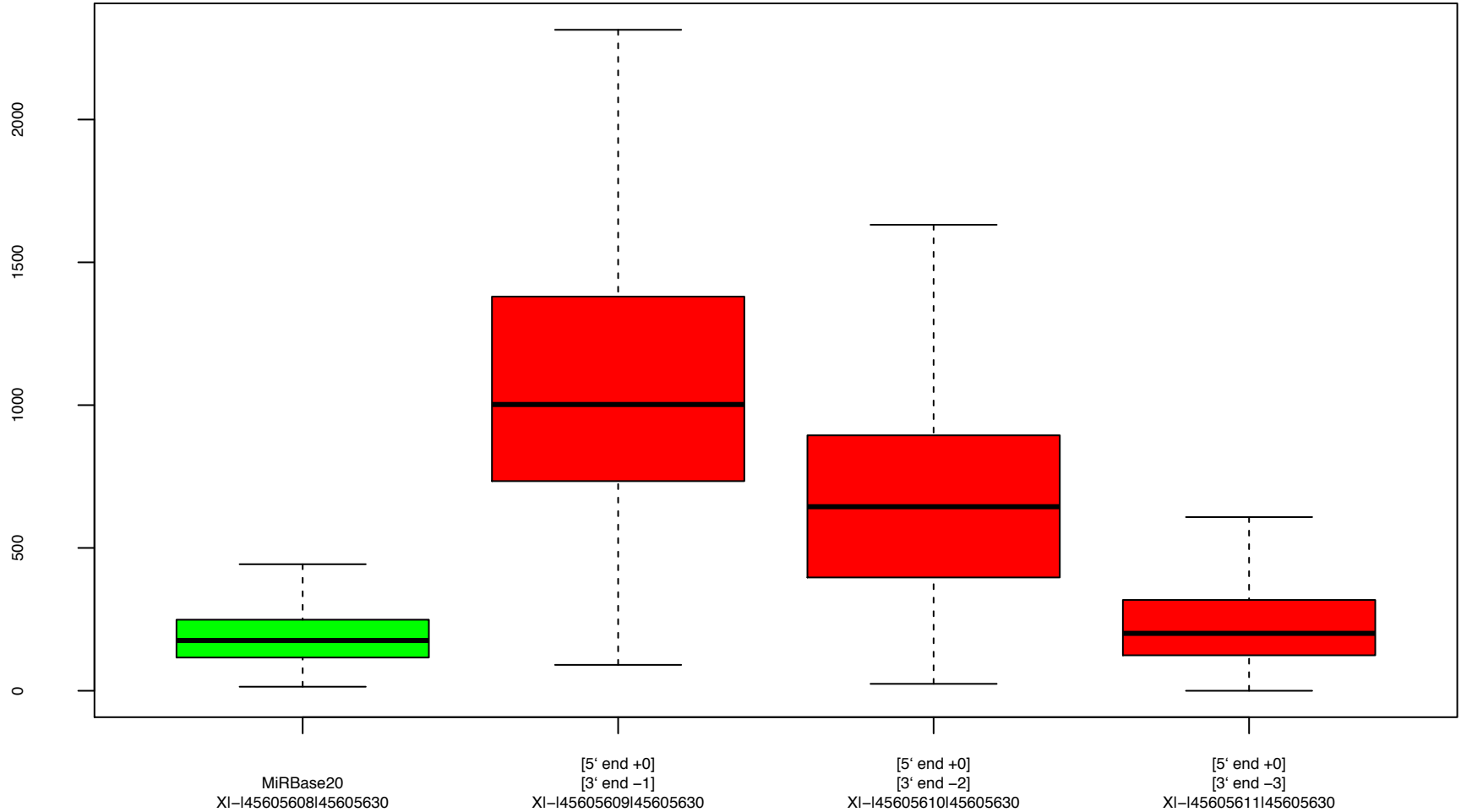
Quantile Normalized Counts



isomiRs

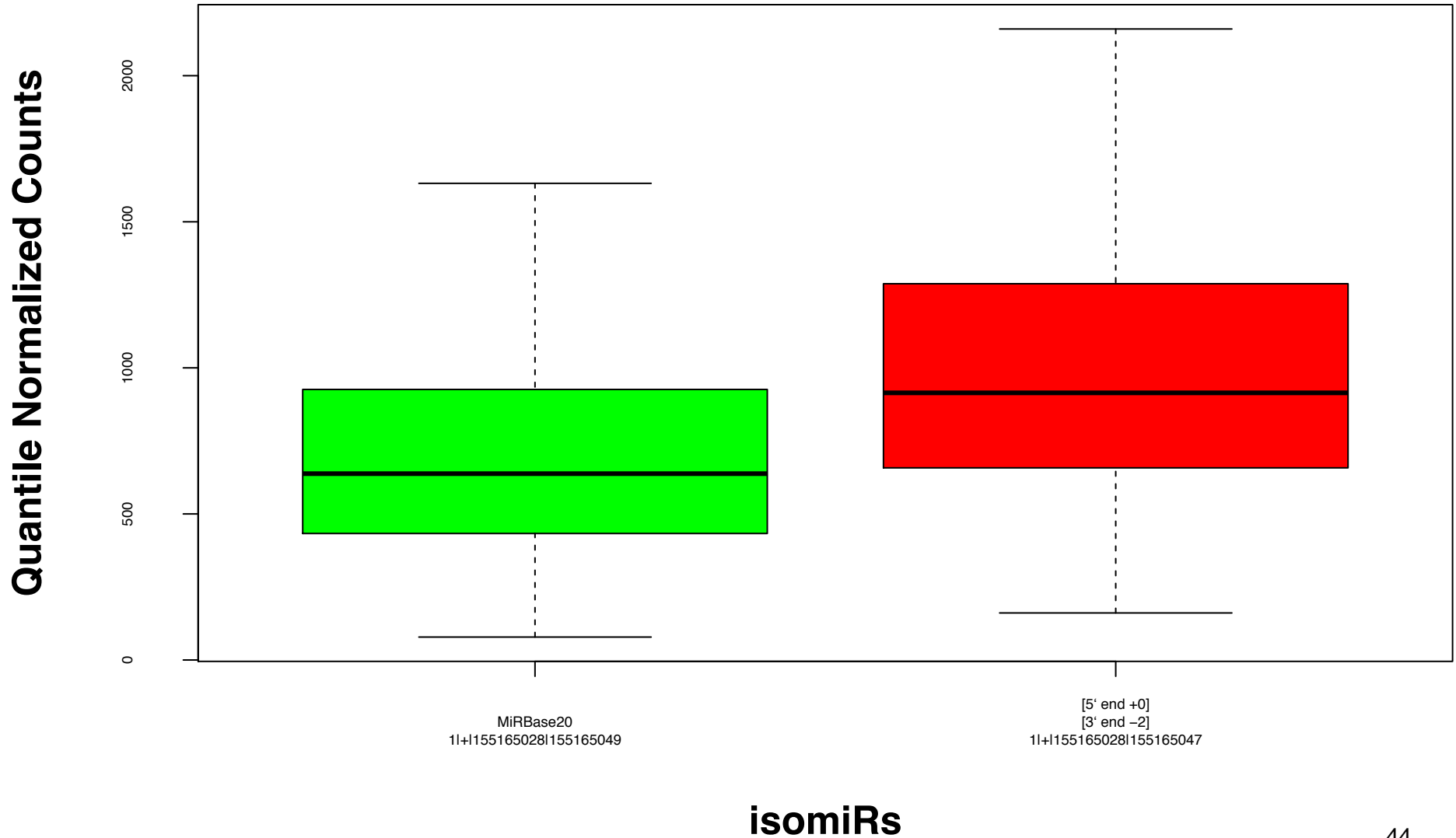
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Quantile Normalized Counts



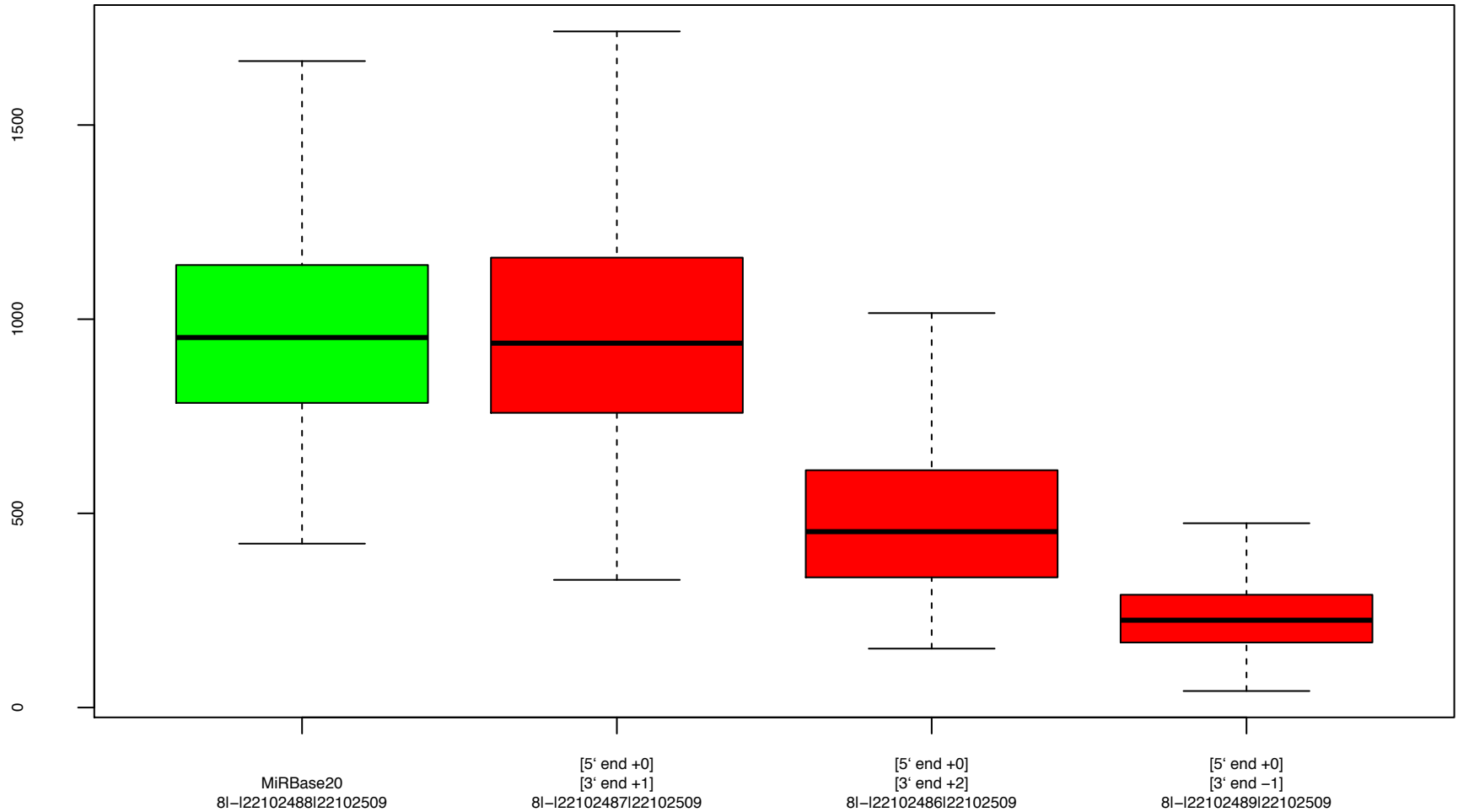
isomiRs

# MIMAT0003218=hsa-miR-92b-3p=MI0003560



# MIMAT0000510=hsa-miR-320a=MI0000542

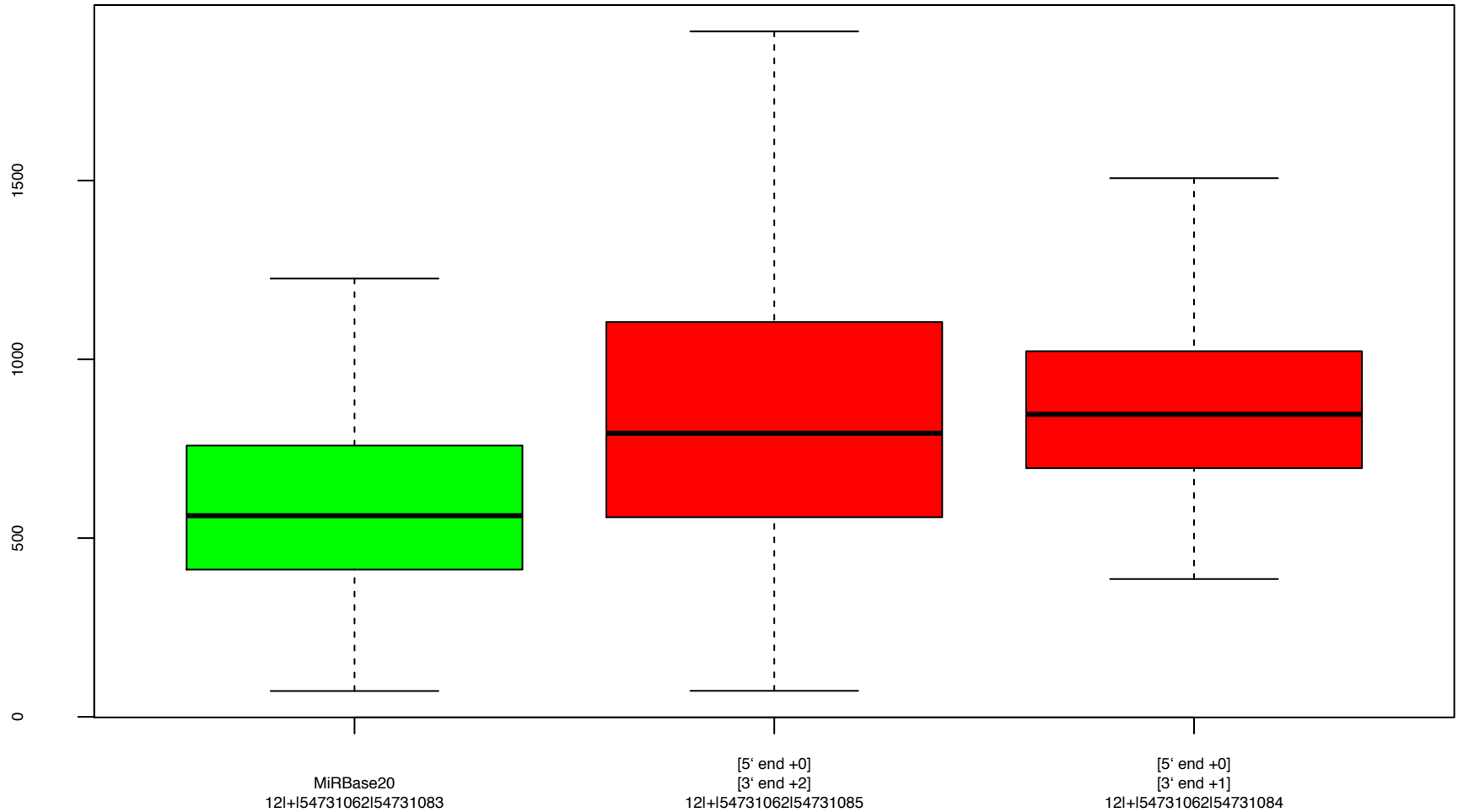
Quantile Normalized Counts



isomiRs

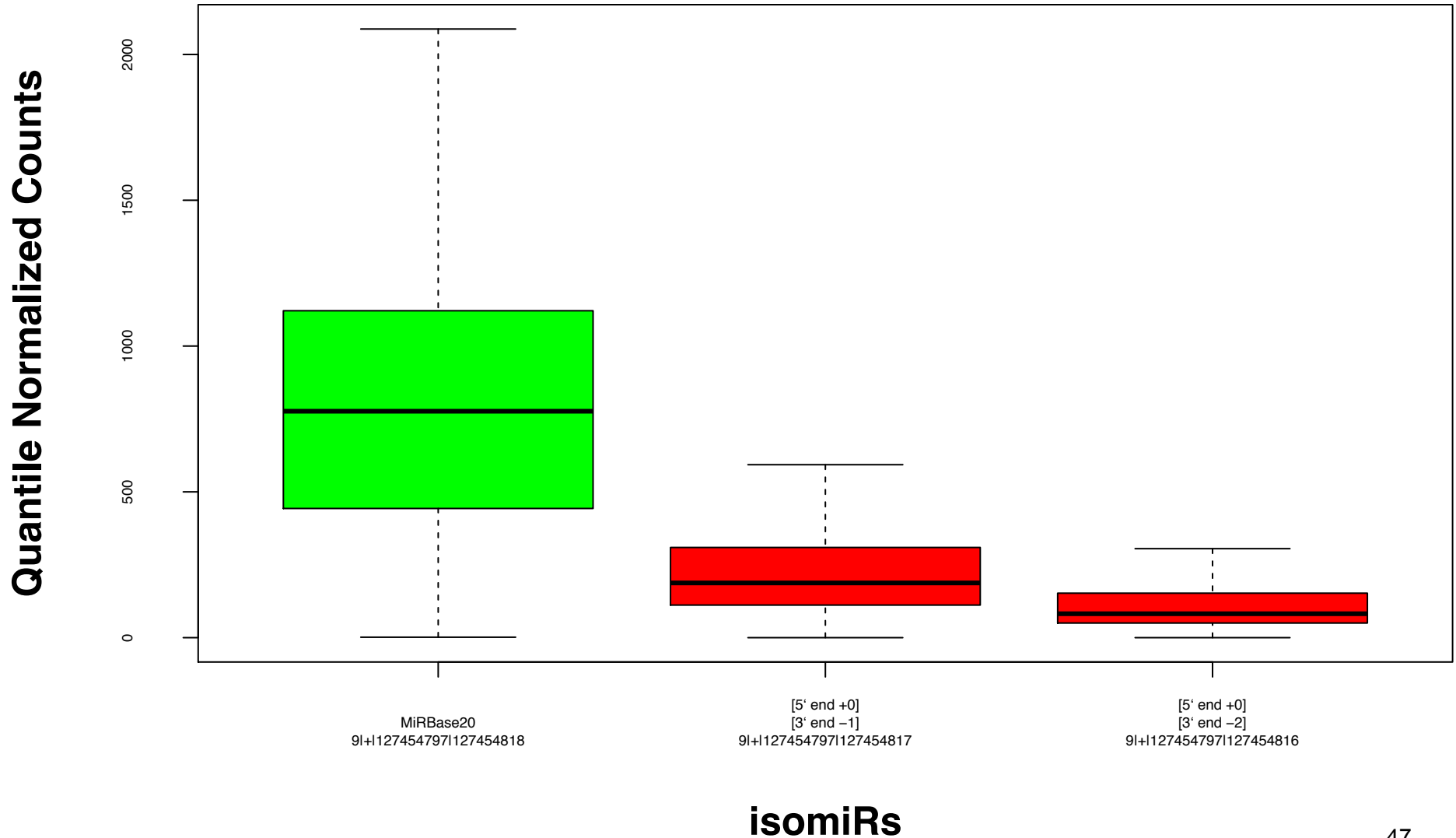
# MIMAT0000759=hsa-miR-148b-3p=MI0000811

Quantile Normalized Counts



isomiRs

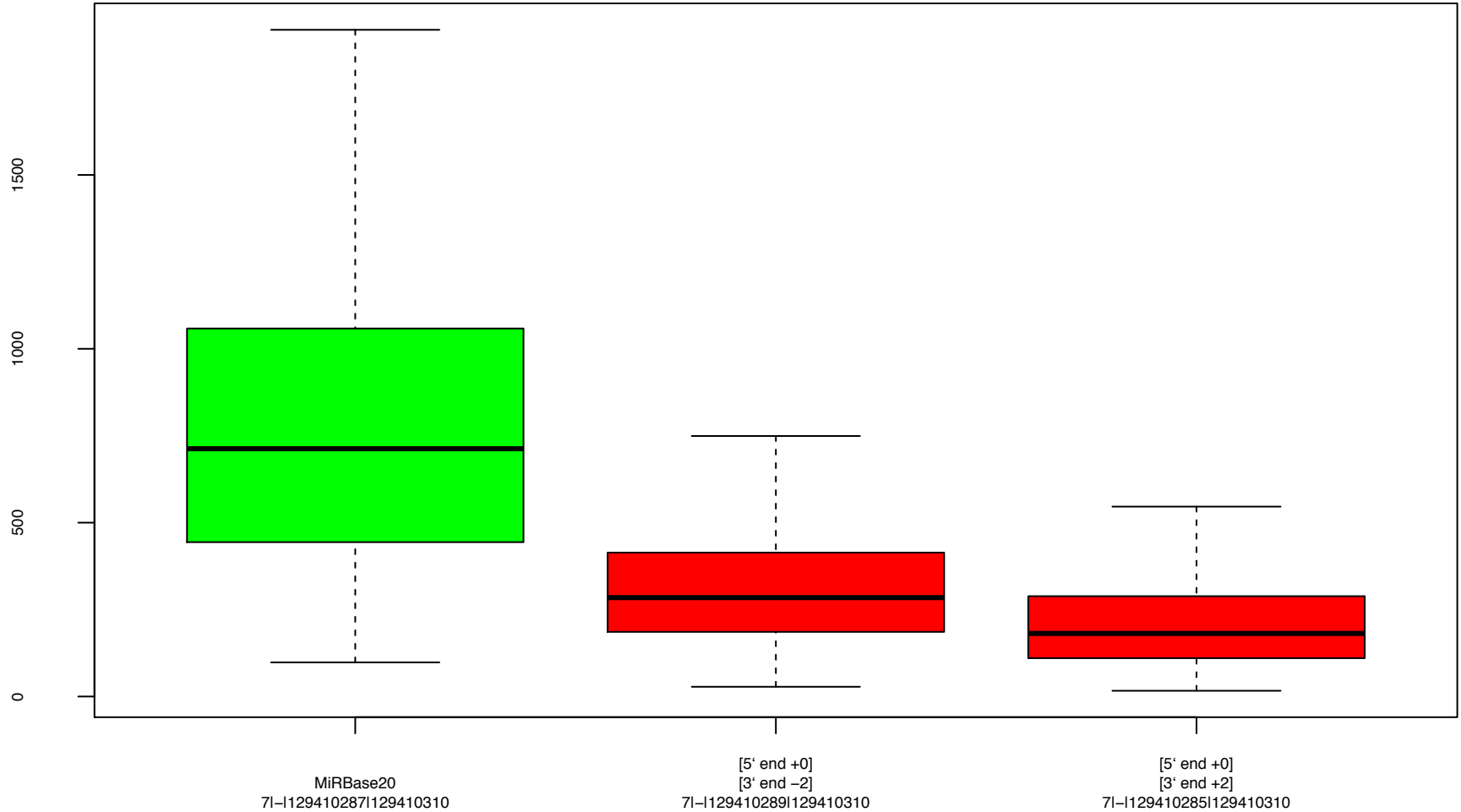
# MIMAT0004558=hsa-miR-181a-2-3p=MI0000269





# MIMAT0000259=hsa-miR-182-5p=MI0000272

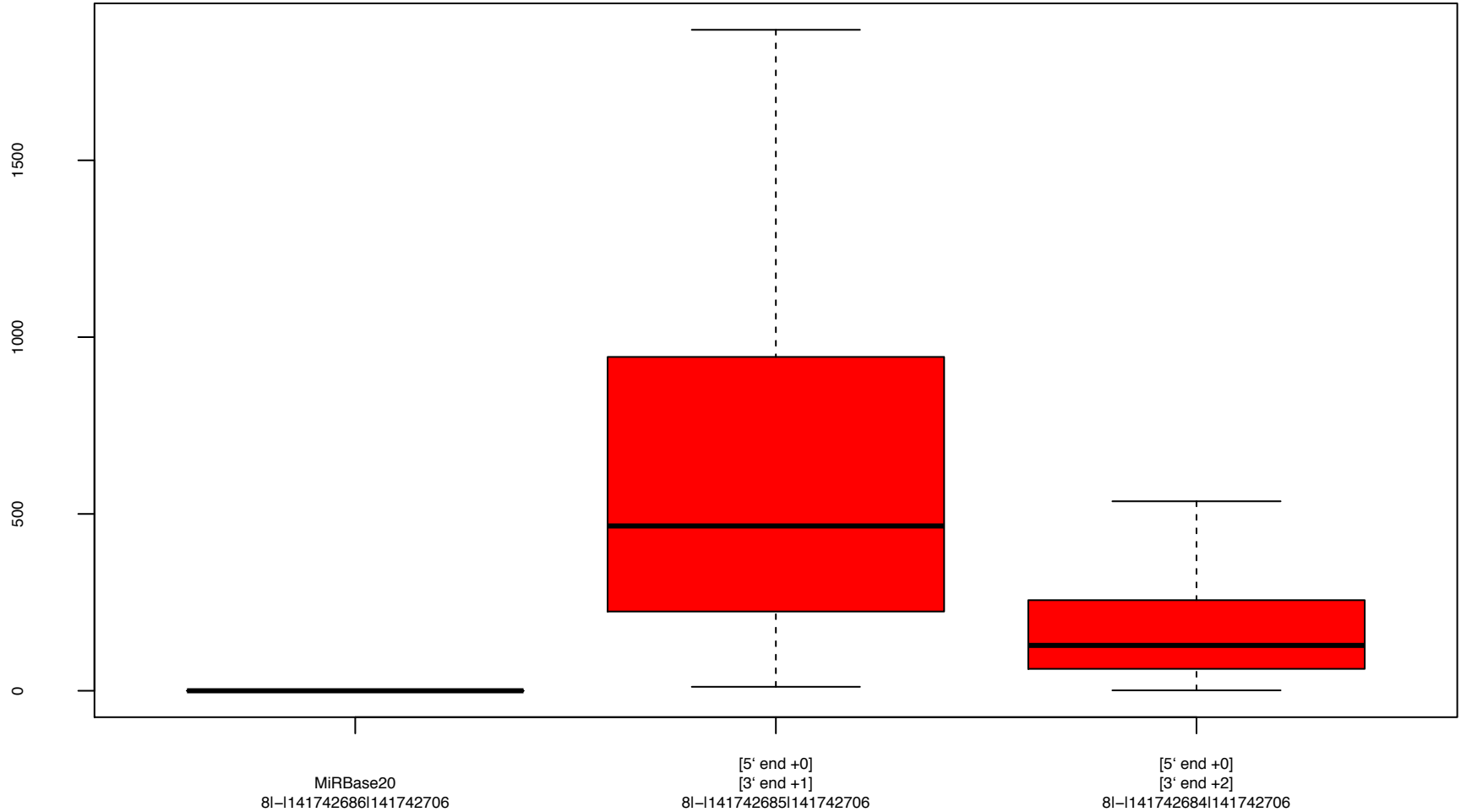
Quantile Normalized Counts



isomiRs

# MIMAT0000757=hsa-miR-151a-3p=MI0000809

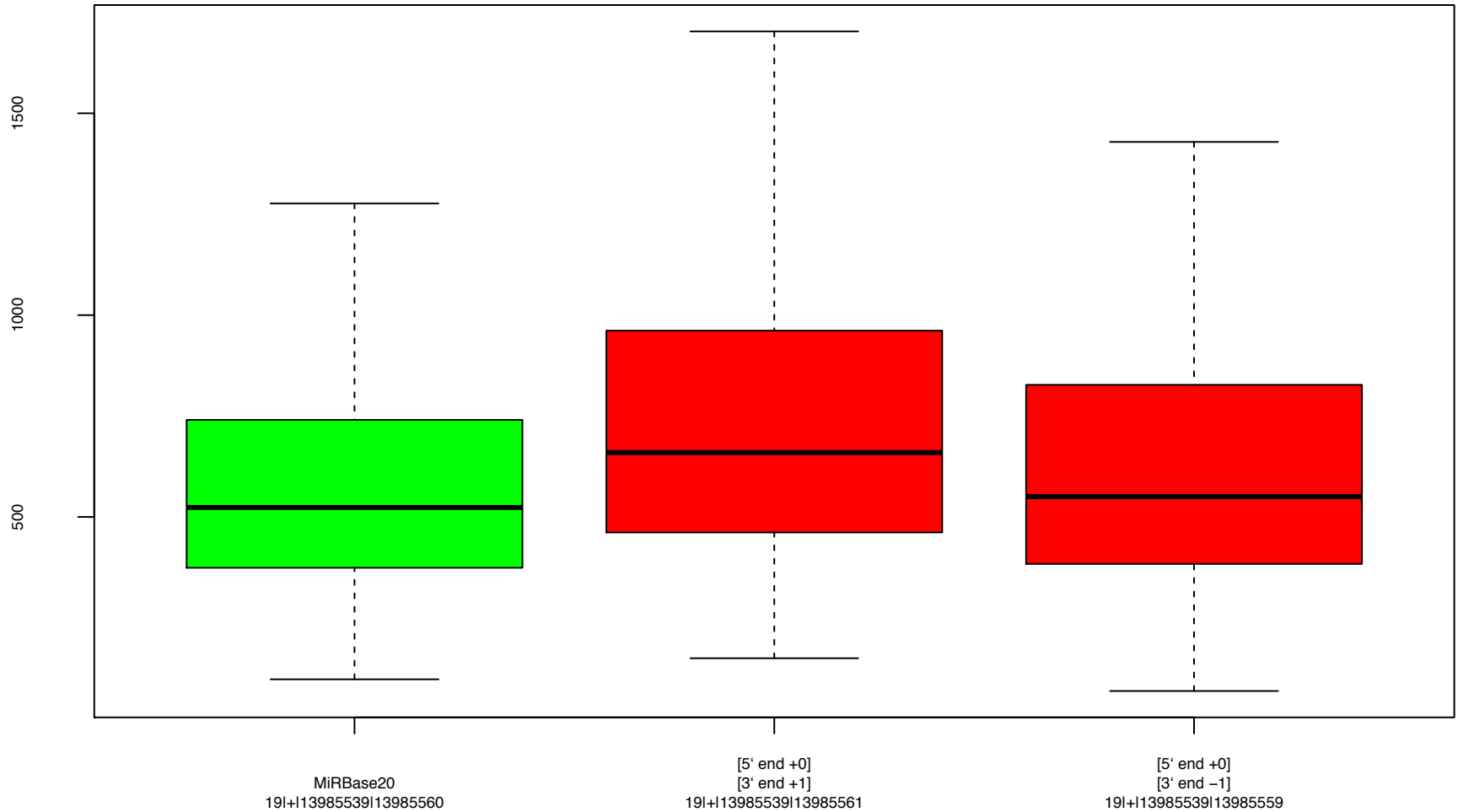
Quantile Normalized Counts



isomiRs

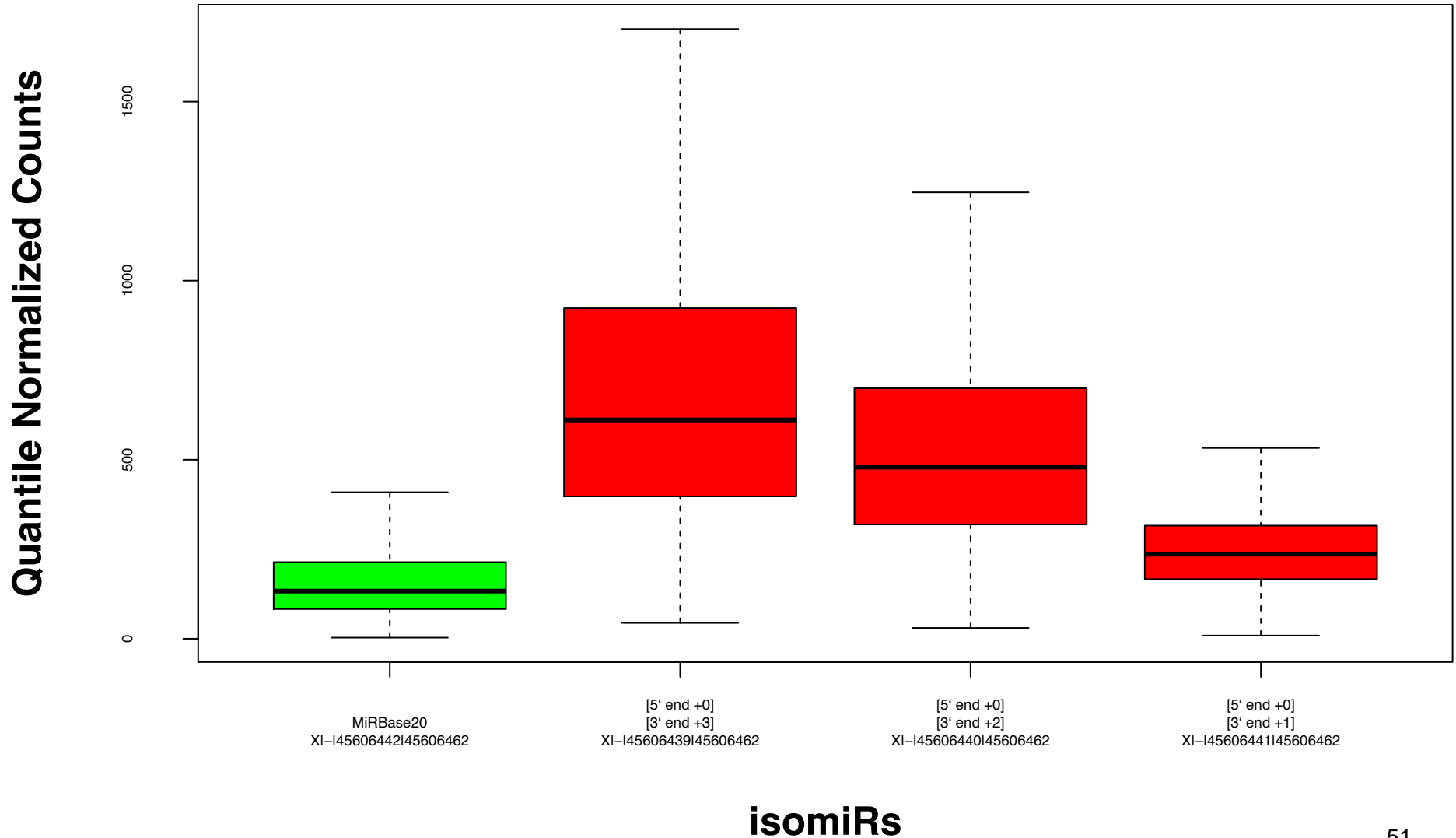
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Quantile Normalized Counts



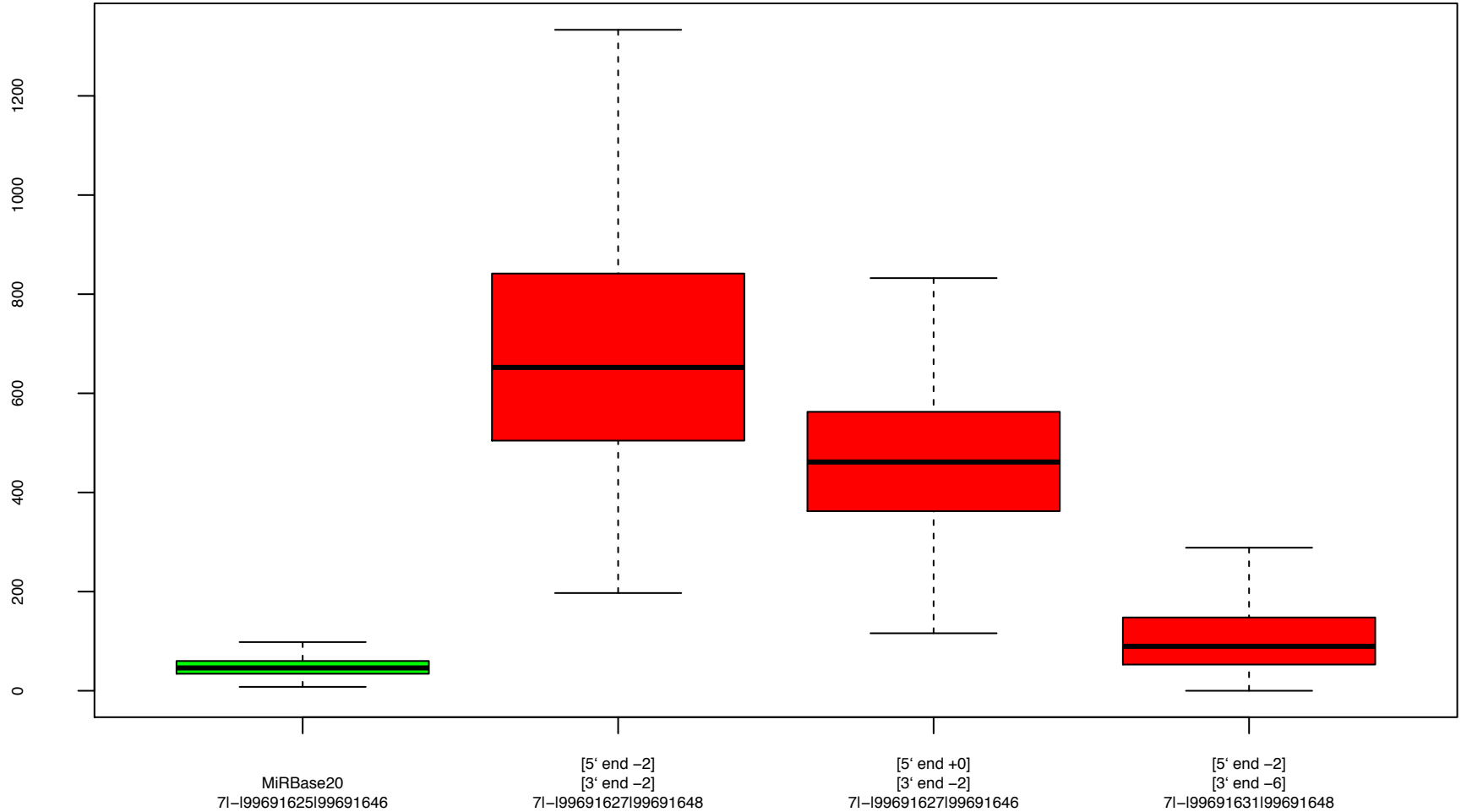
isomiRs

# MIMAT0000279=hsa-miR-222-3p=MI0000299



# MIMAT0004672=hsa-miR-106b-3p=MI0000734

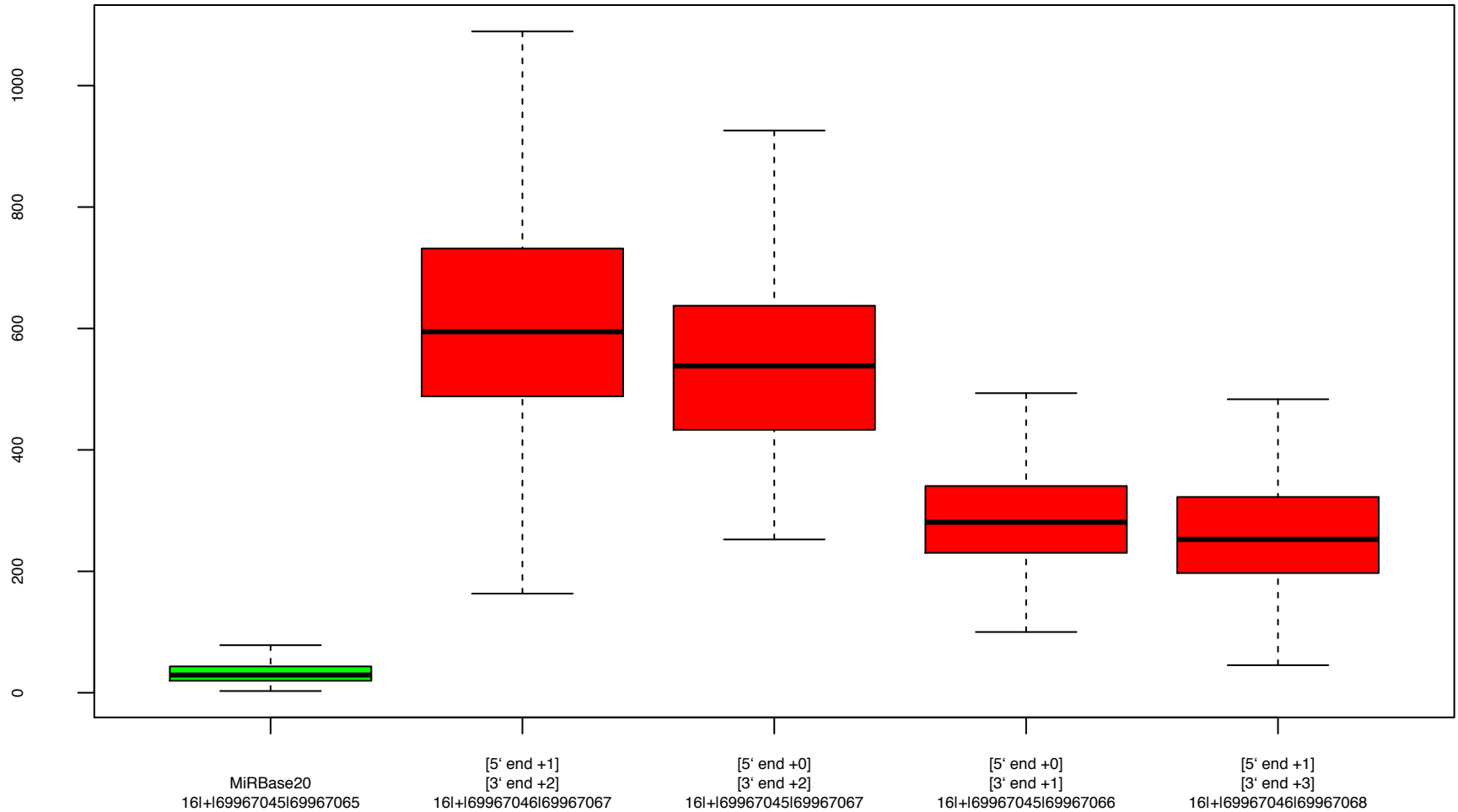
Quantile Normalized Counts



isomiRs

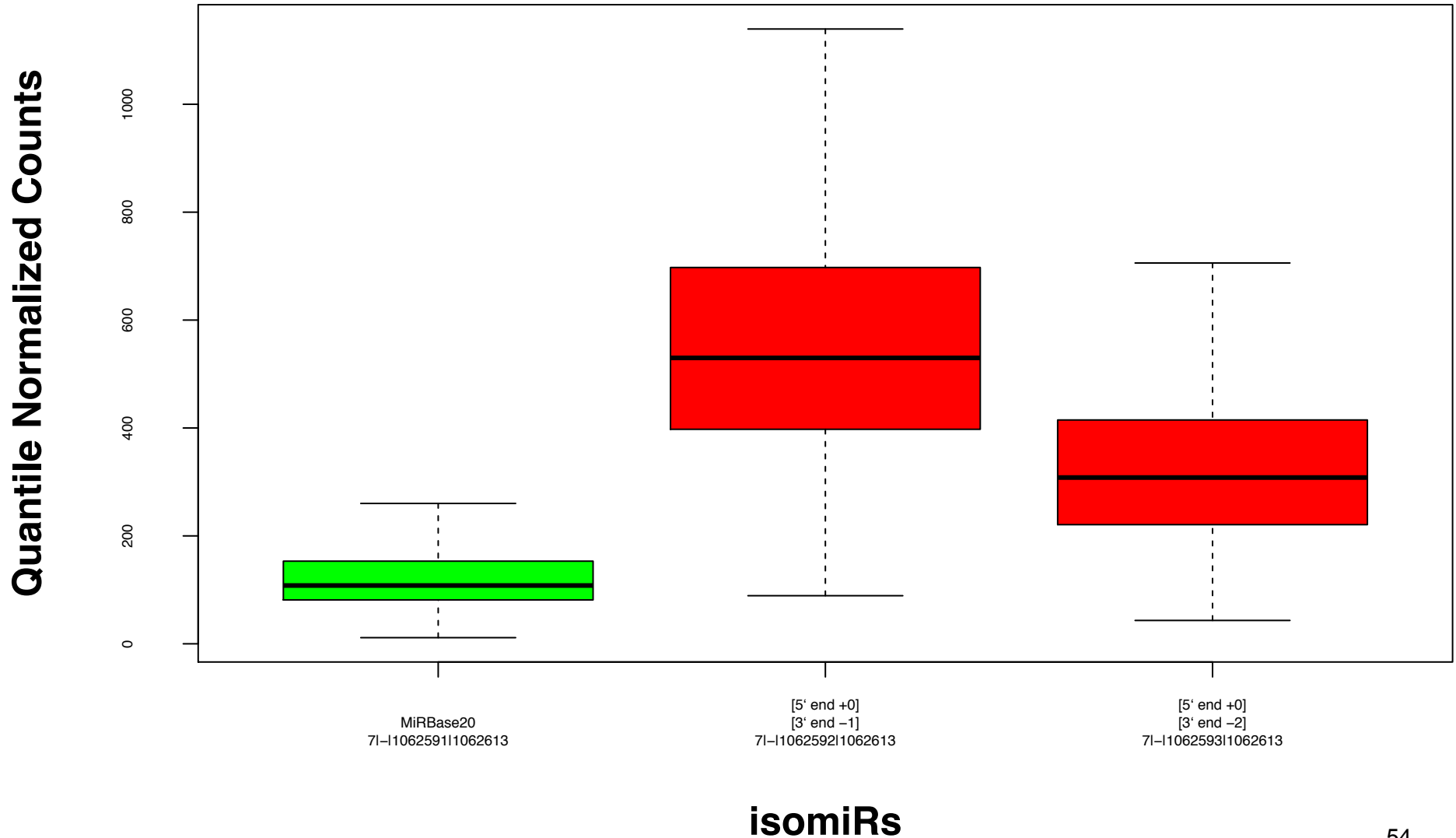
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Quantile Normalized Counts

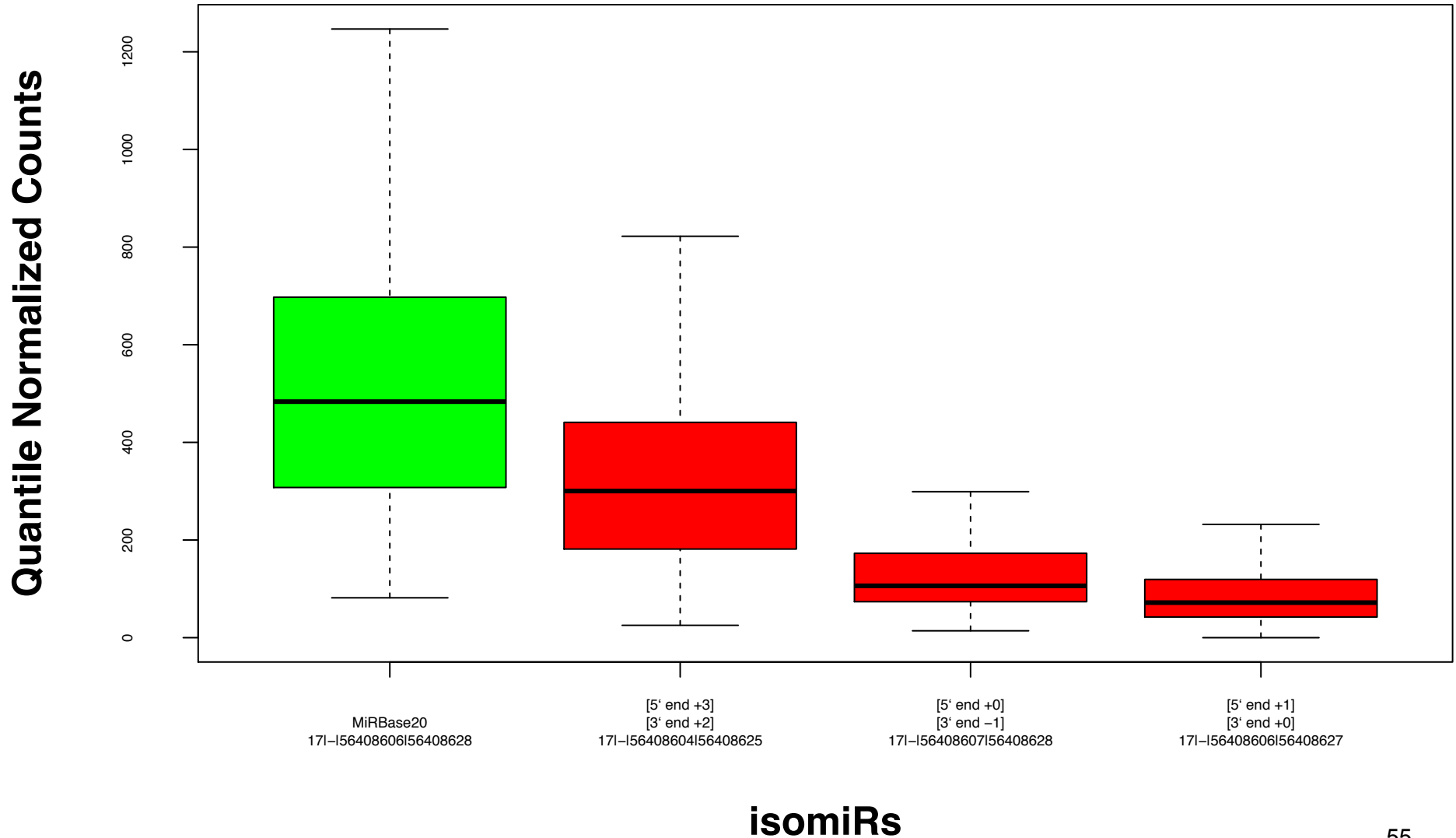


isomiRs

# MIMAT0004702=hsa-miR-339-3p=MI0000815

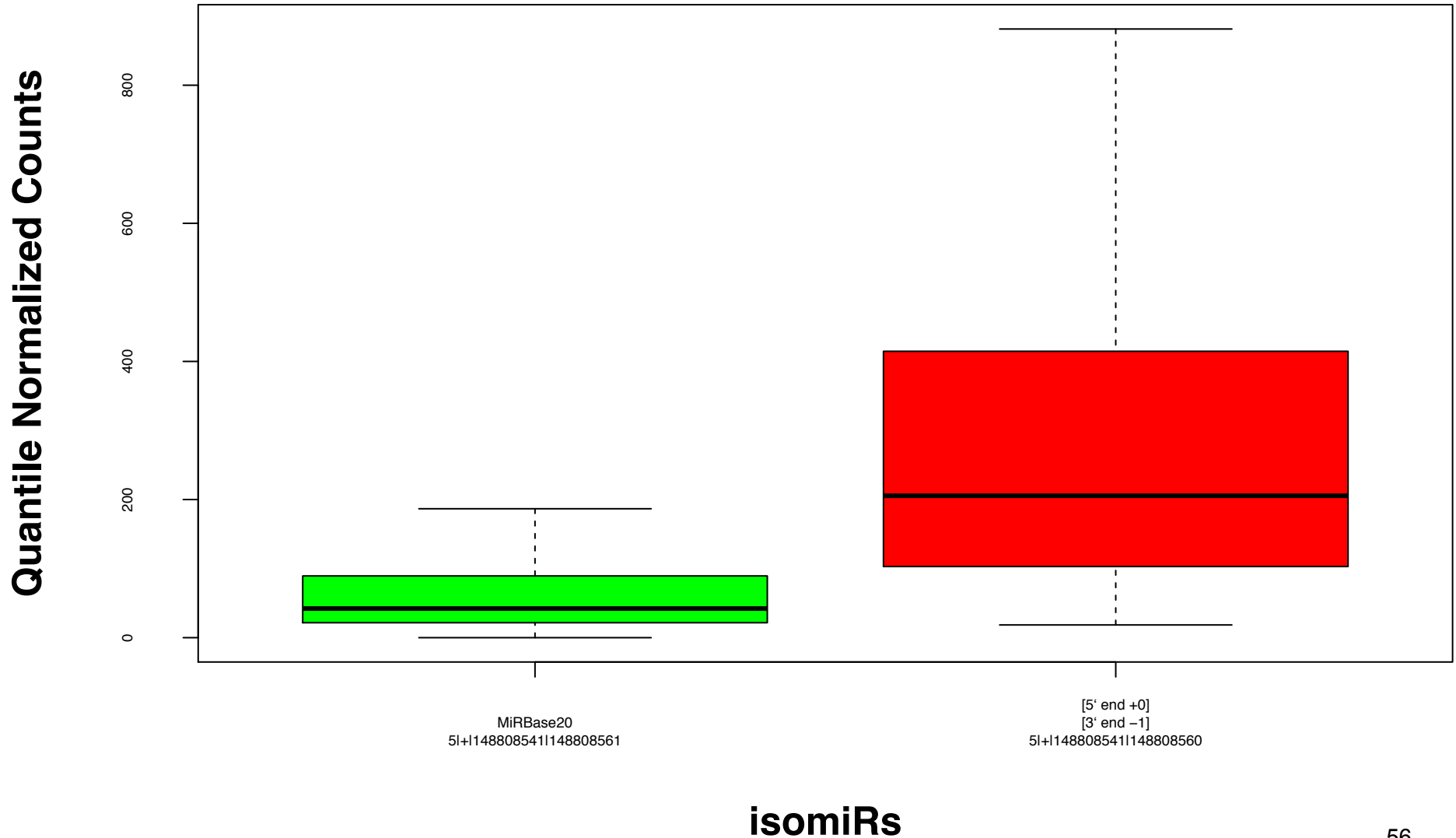


# MIMAT0000434=hsa-miR-142-3p=MI0000458

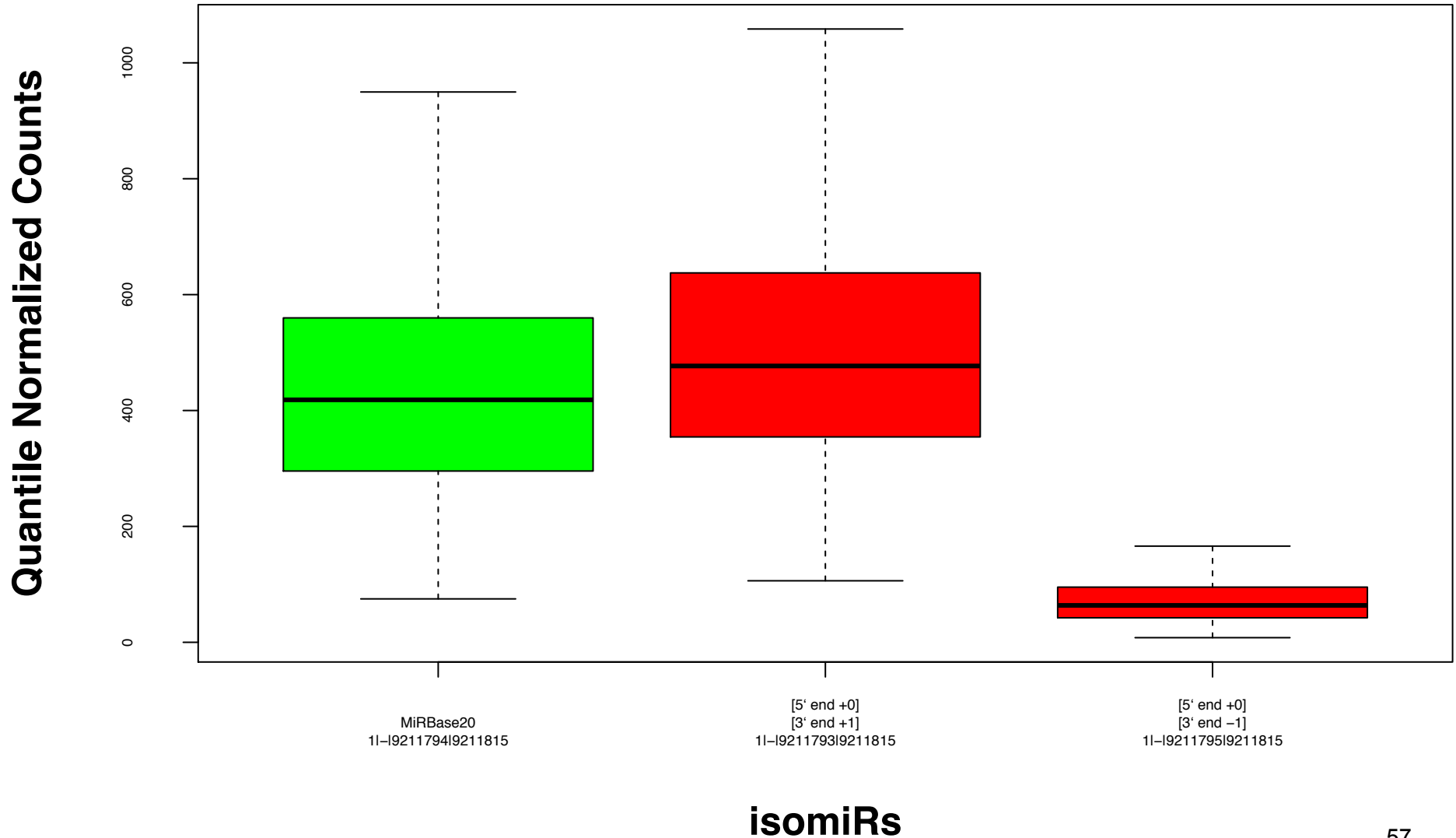




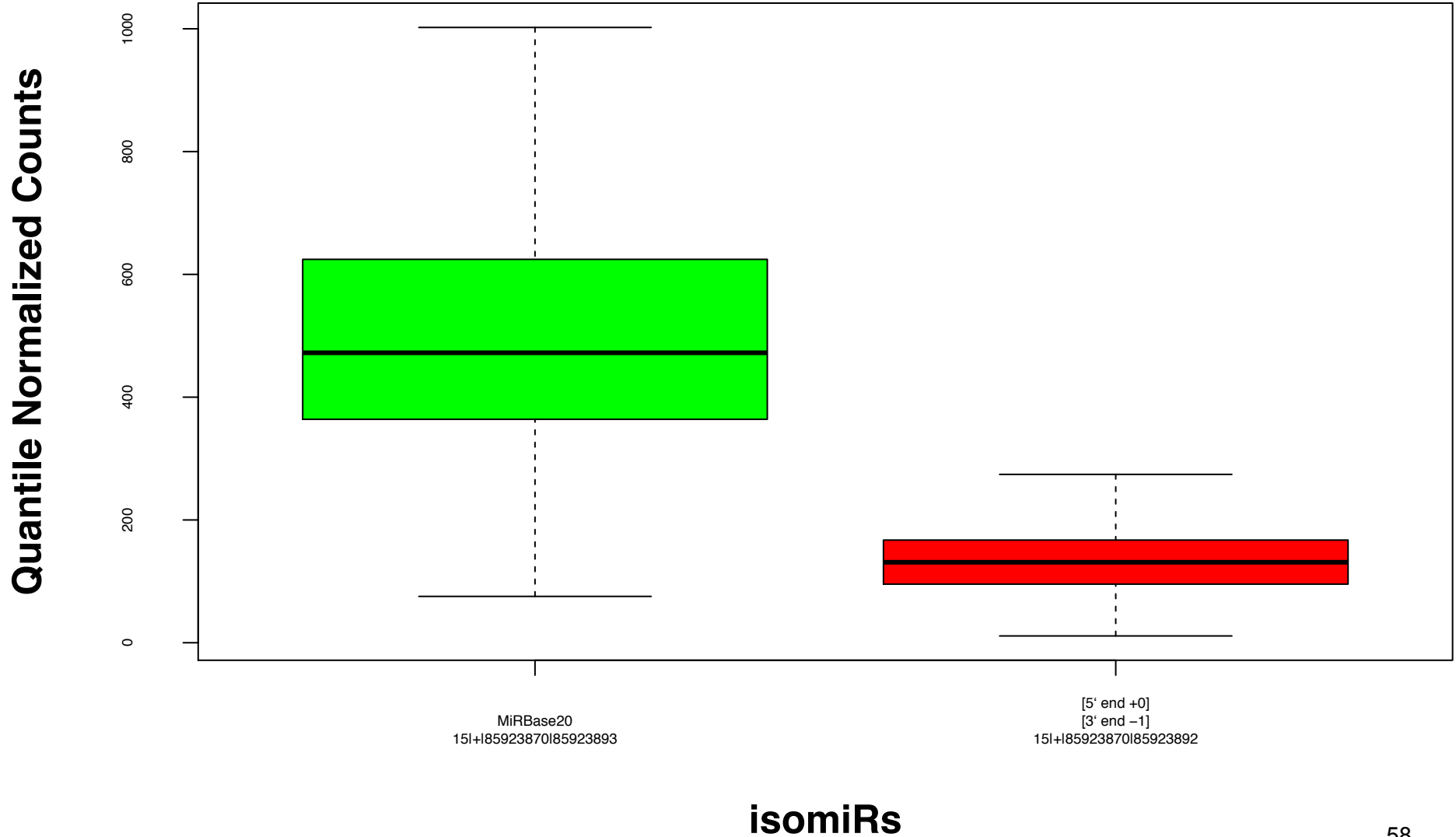
# MIMAT0000435=hsa-miR-143-3p=MI0000459



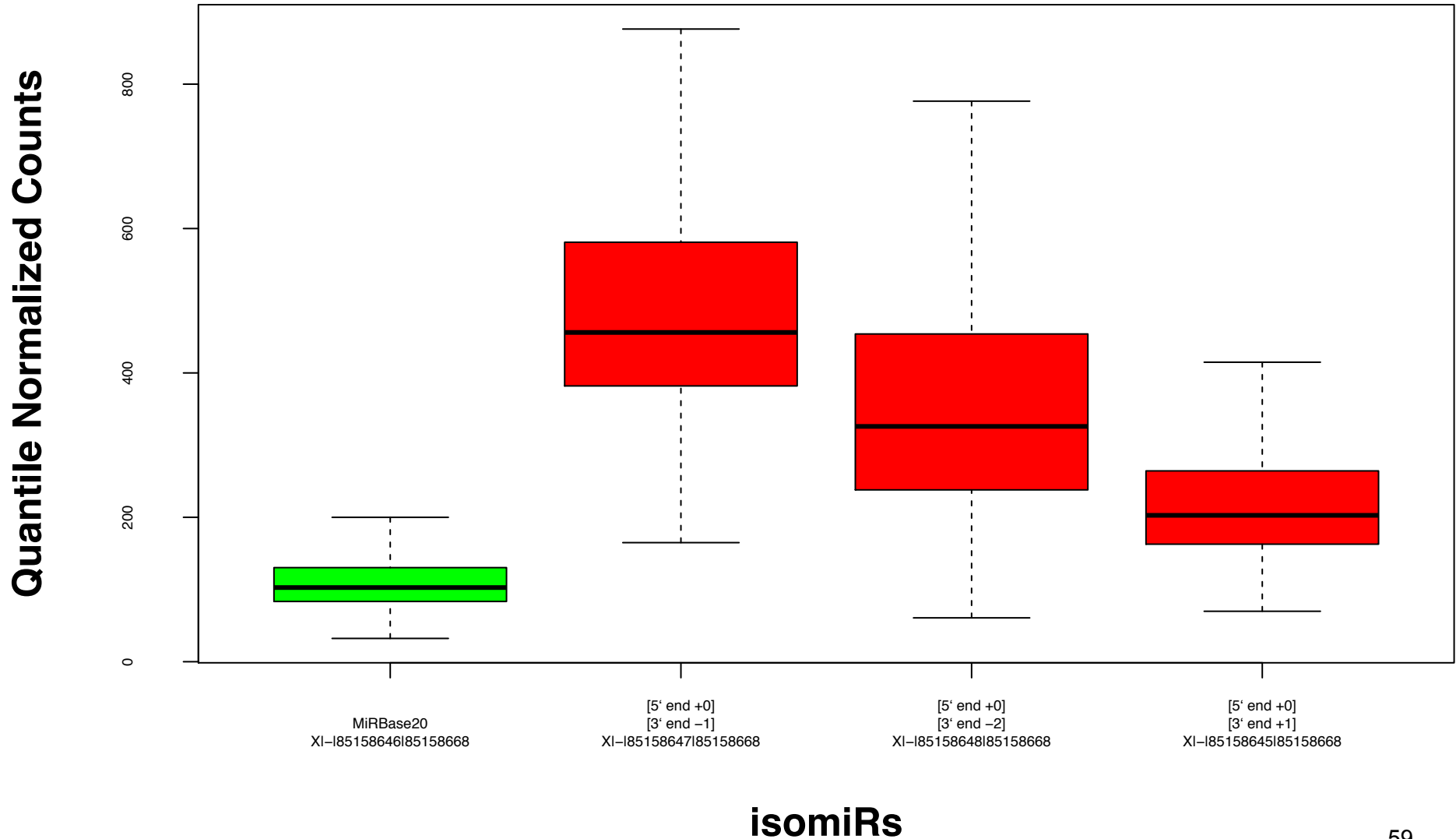
# MIMAT0000255=hsa-miR-34a-5p=MI0000268



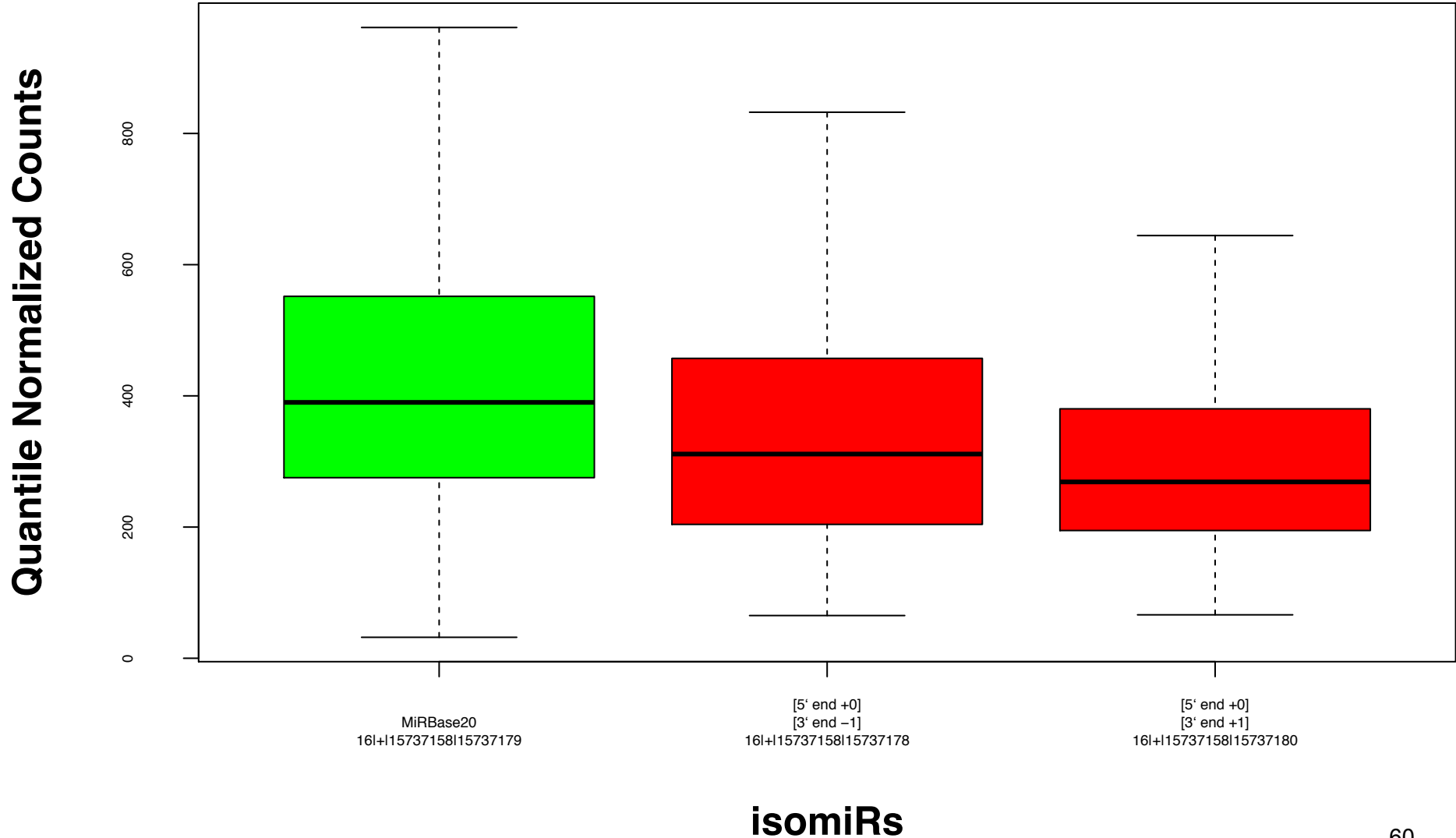
# MIMAT0030021=hsa-miR-7706=MI0025242



# MIMAT0004682=hsa-miR-361-3p=MI0000760

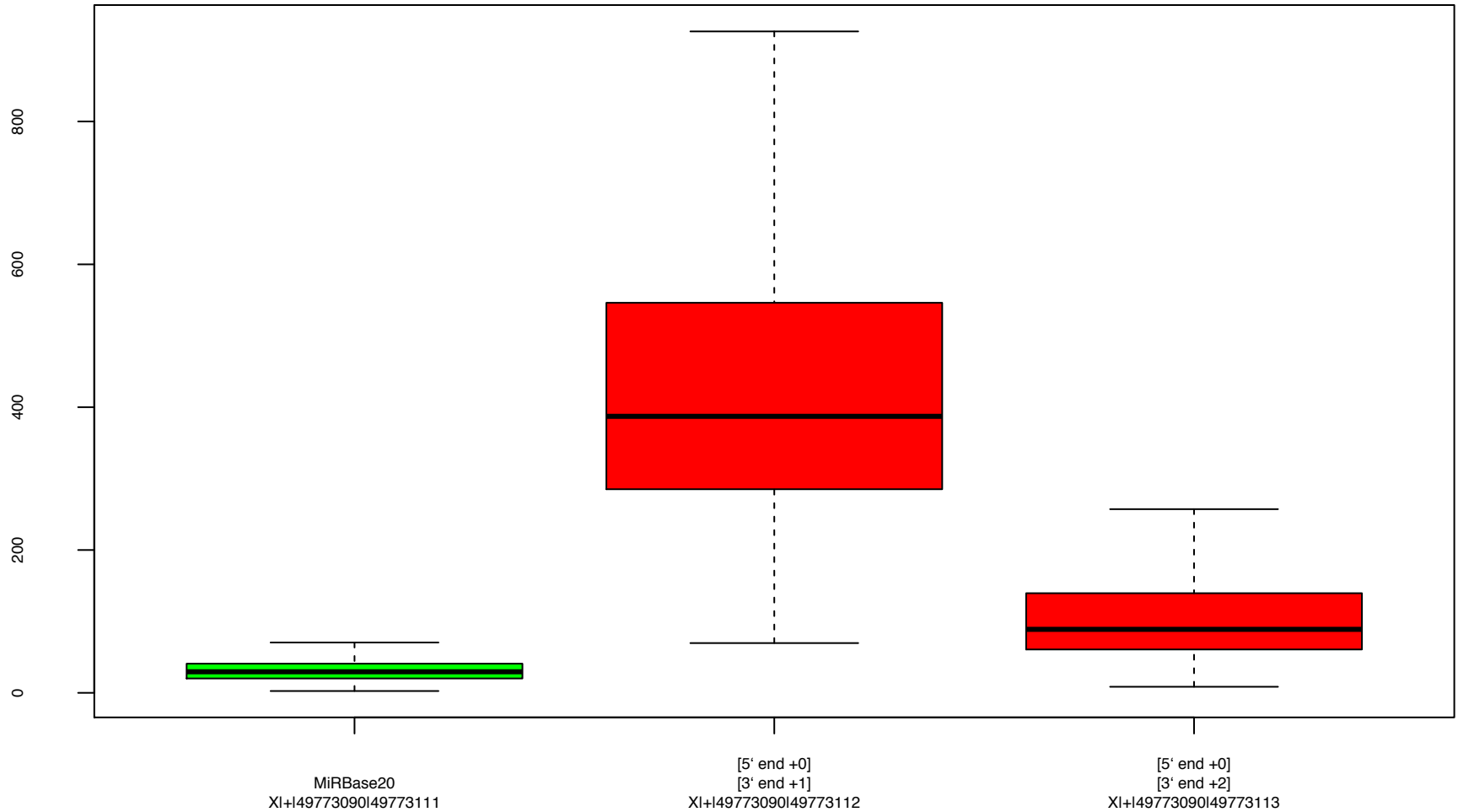


# MIMAT0002174=hsa-miR-484=MI0002468



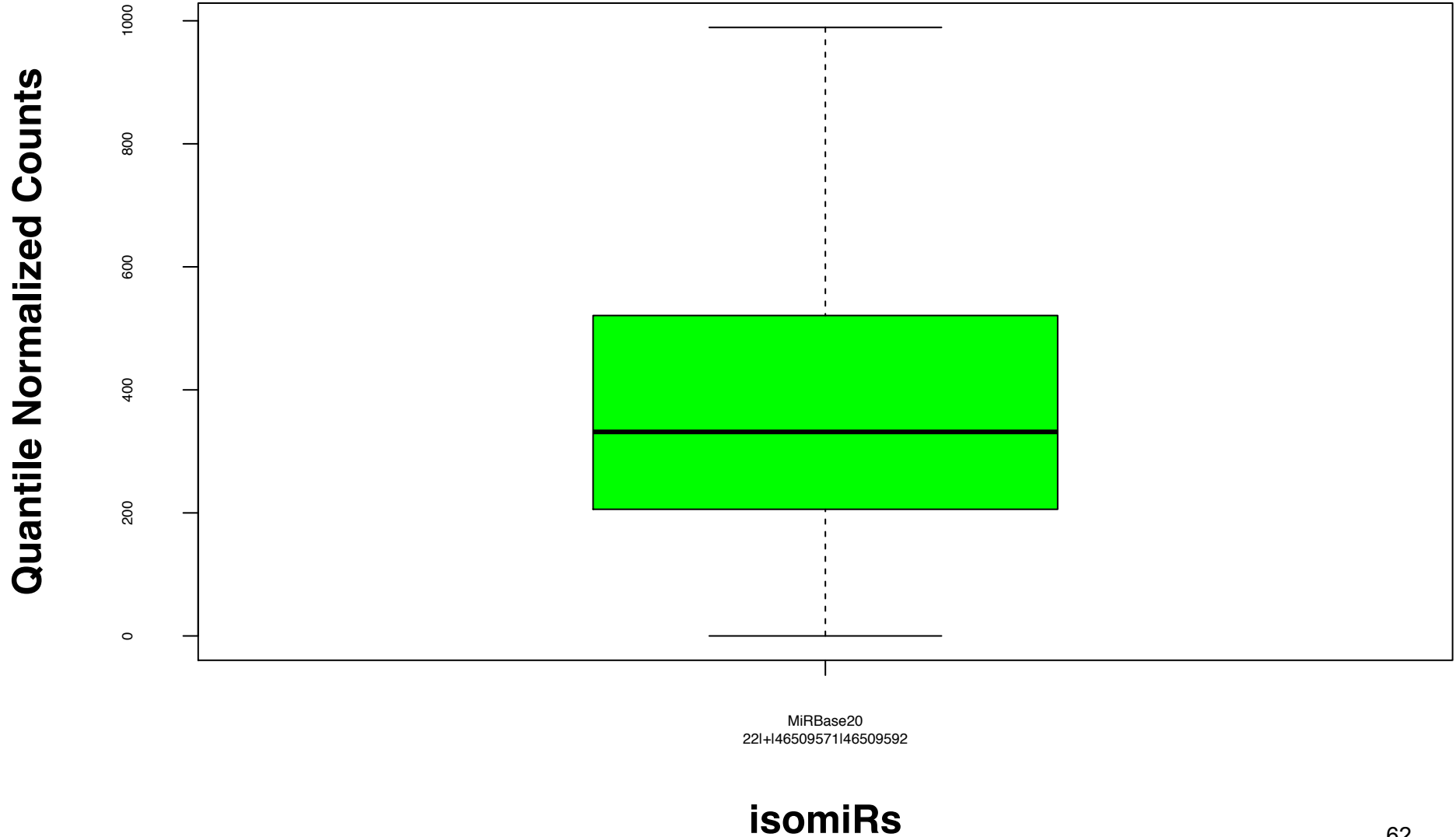
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Quantile Normalized Counts

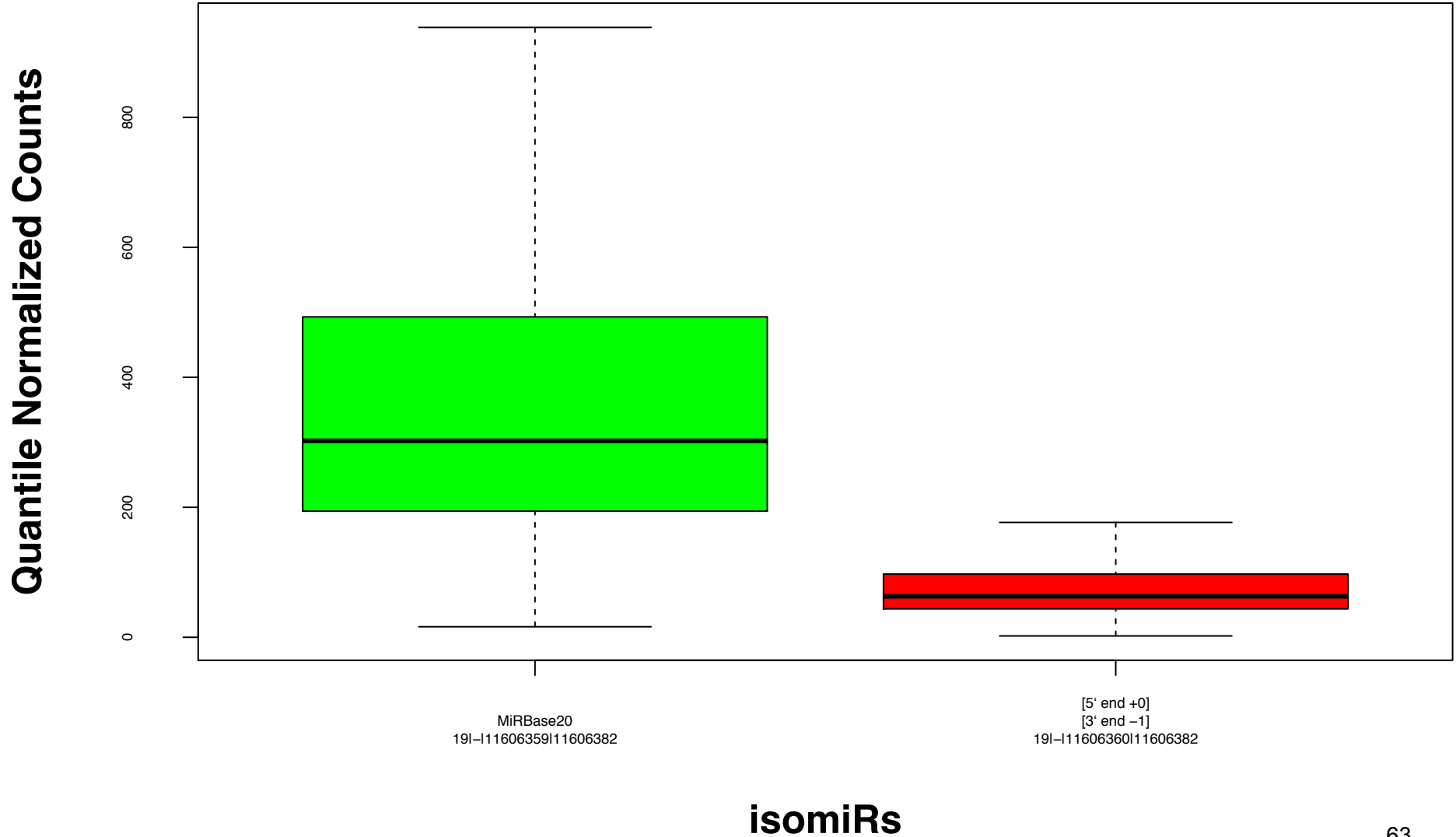


isomiRs

# MIMAT0000063=hsa-let-7b-5p=MI0000063

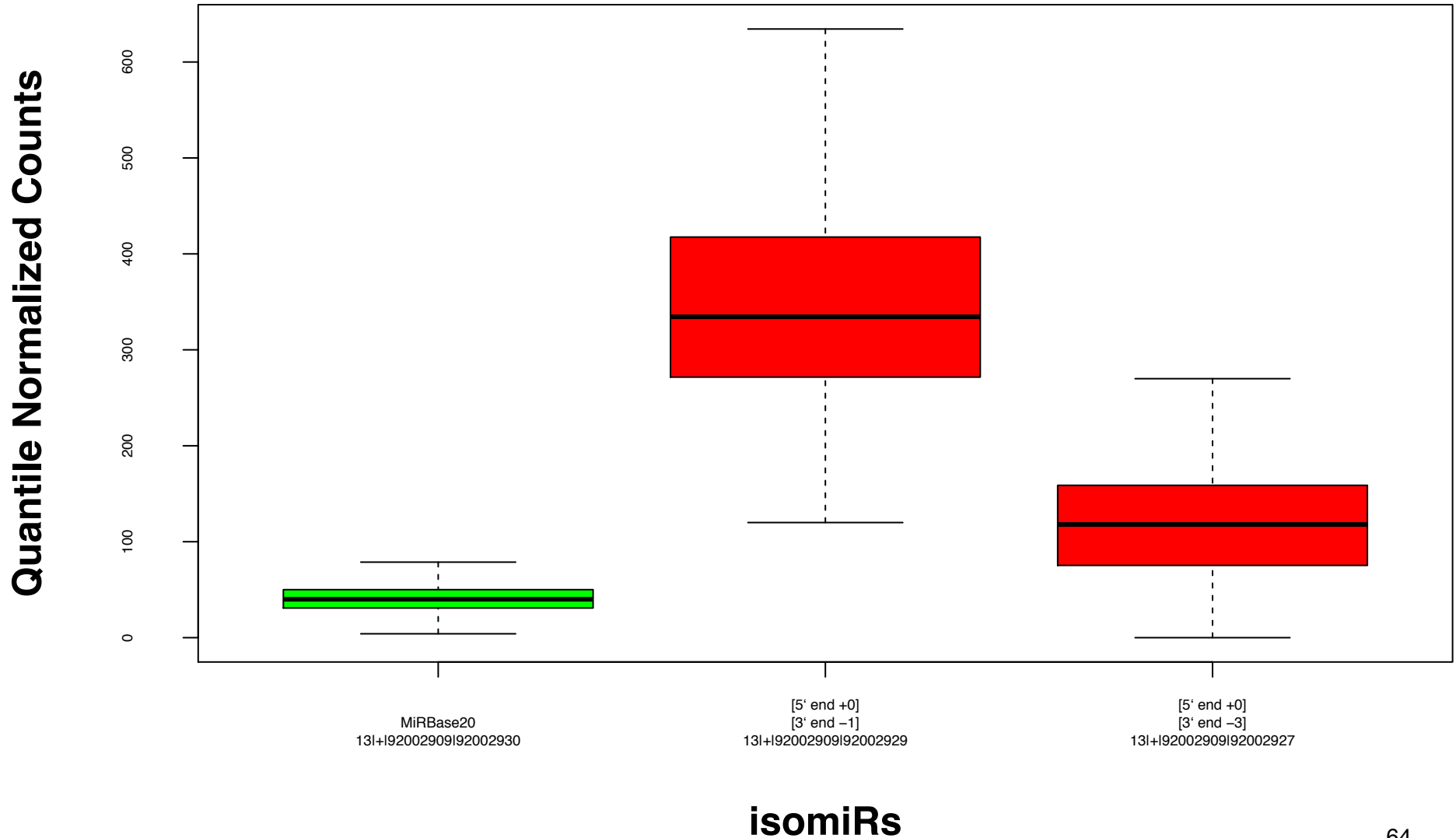


# MIMAT0031177=hsa-miR-7974=MI0025750

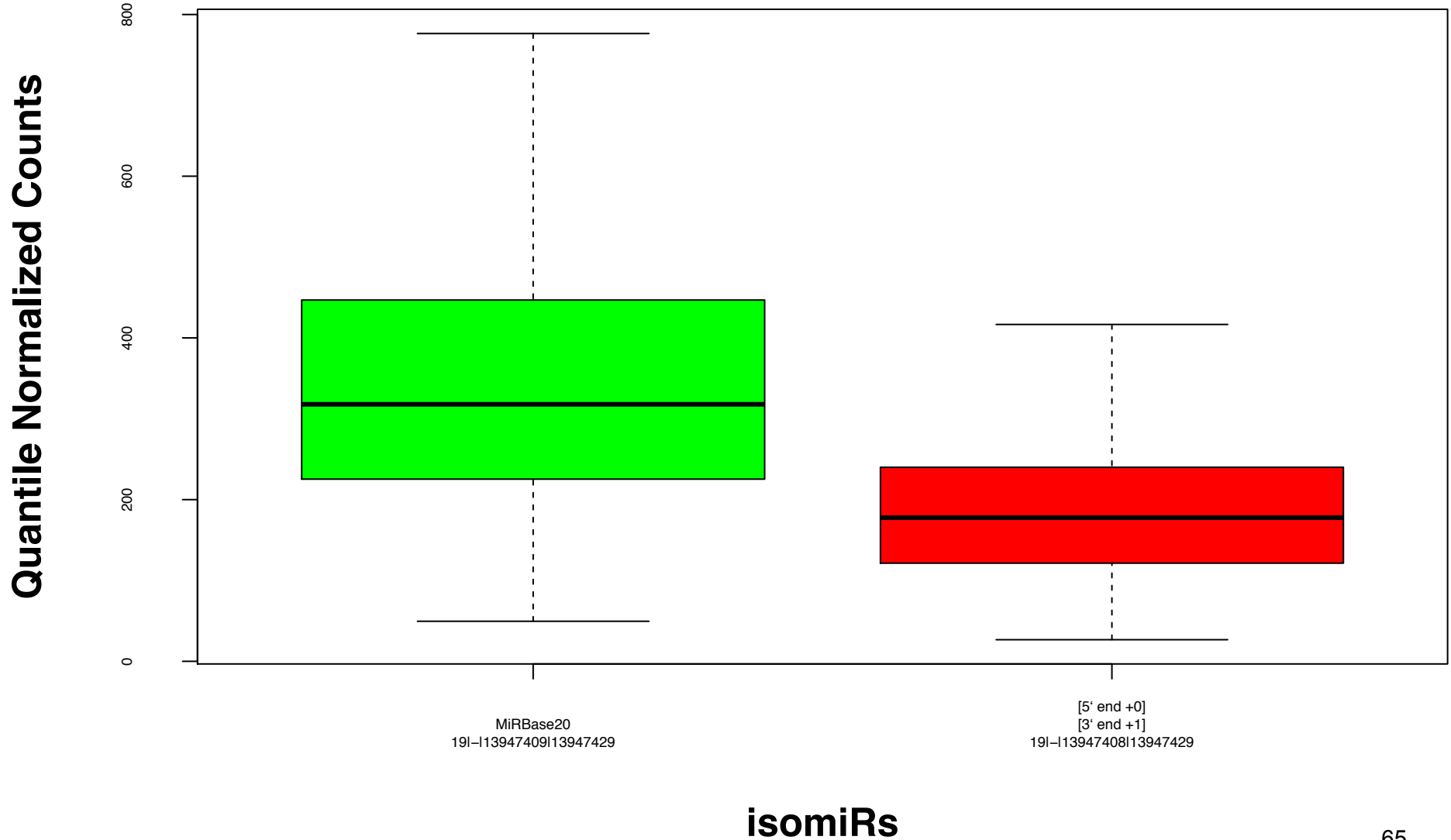




# MIMAT0000071=hsa-miR-17-3p=MI0000071

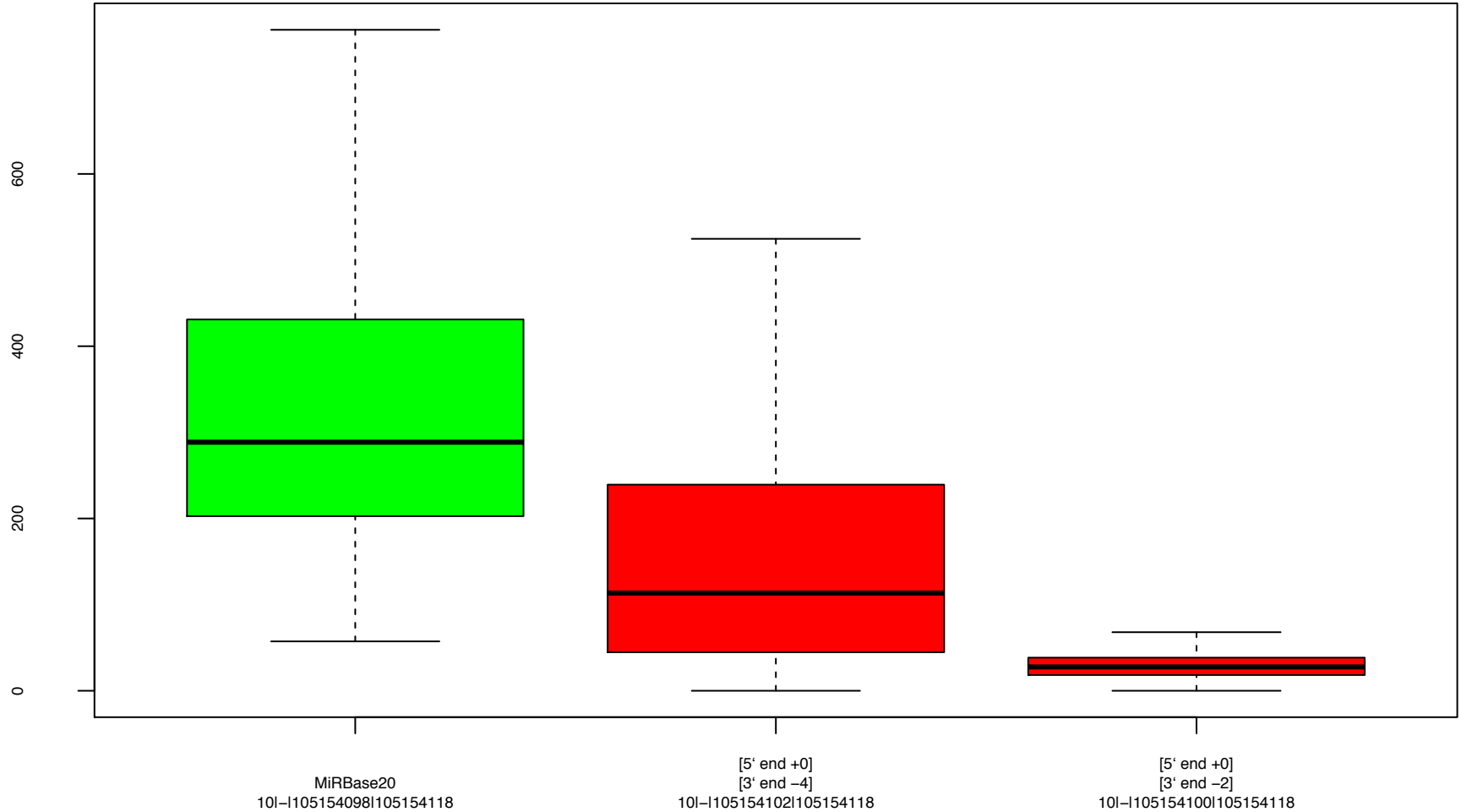


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# MIMAT0022727=hsa-miR-1307-5p=MI0006444

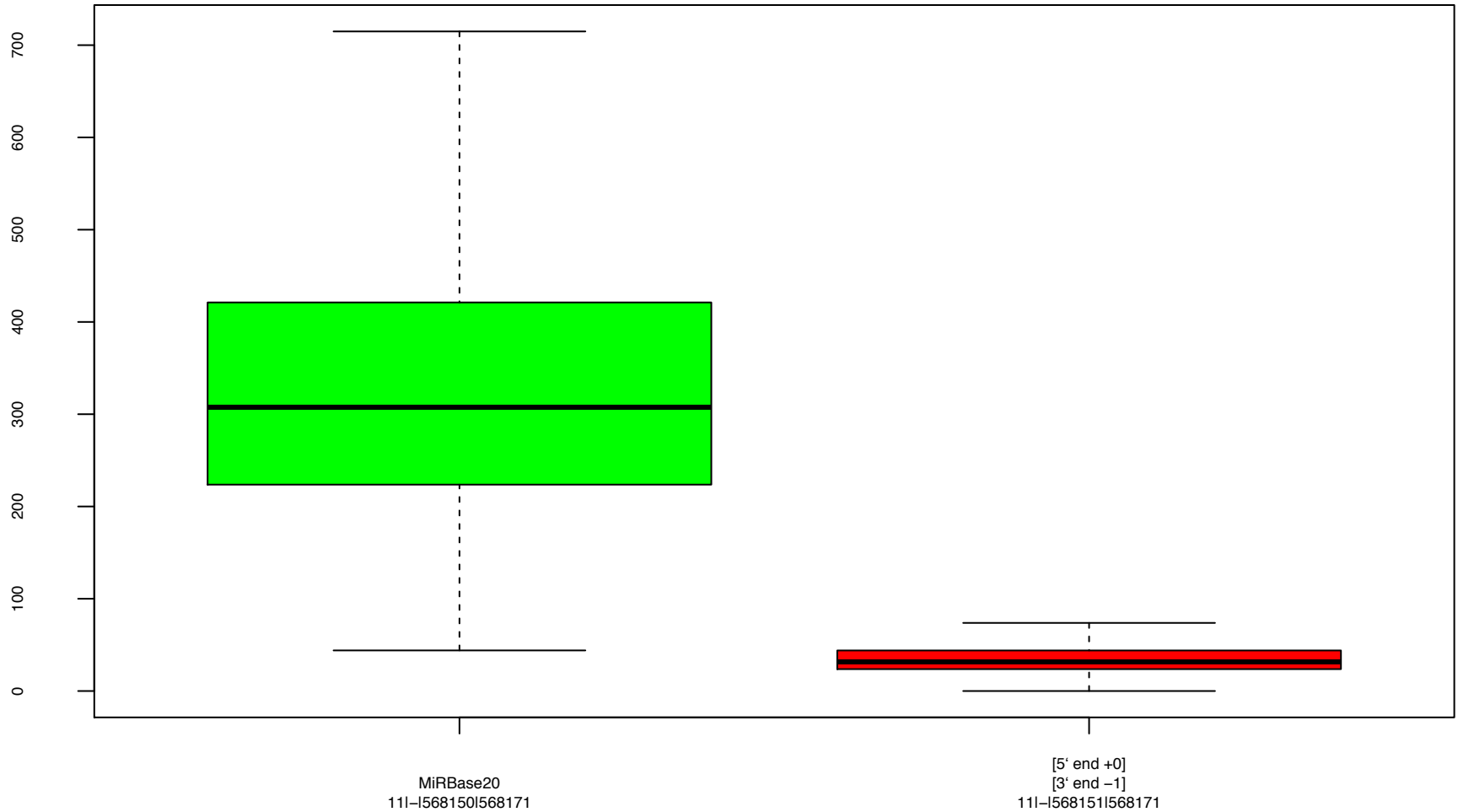
Quantile Normalized Counts



isomiRs

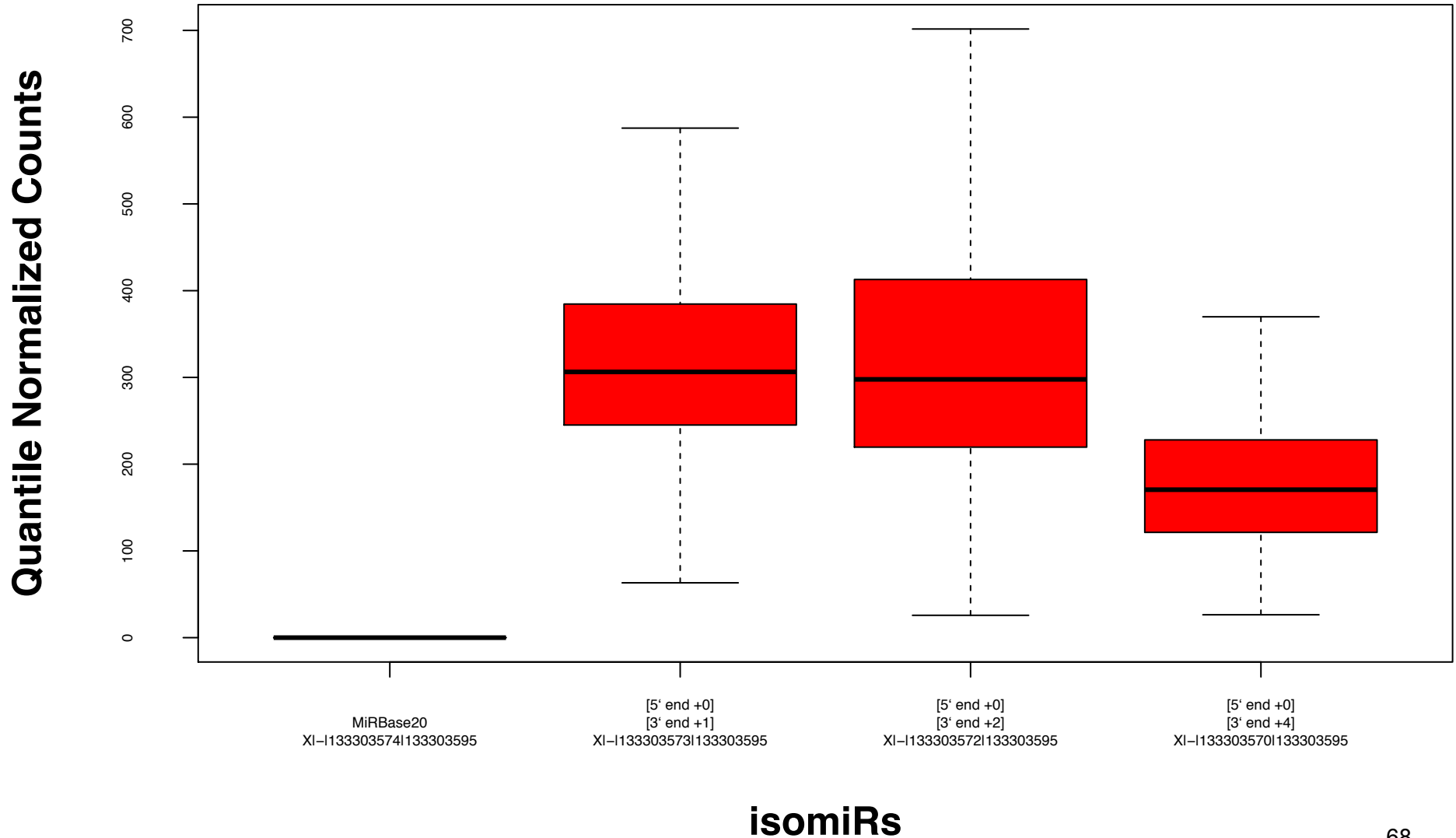
# MIMAT0026475=hsa-miR-210-5p=MI0000286

Quantile Normalized Counts



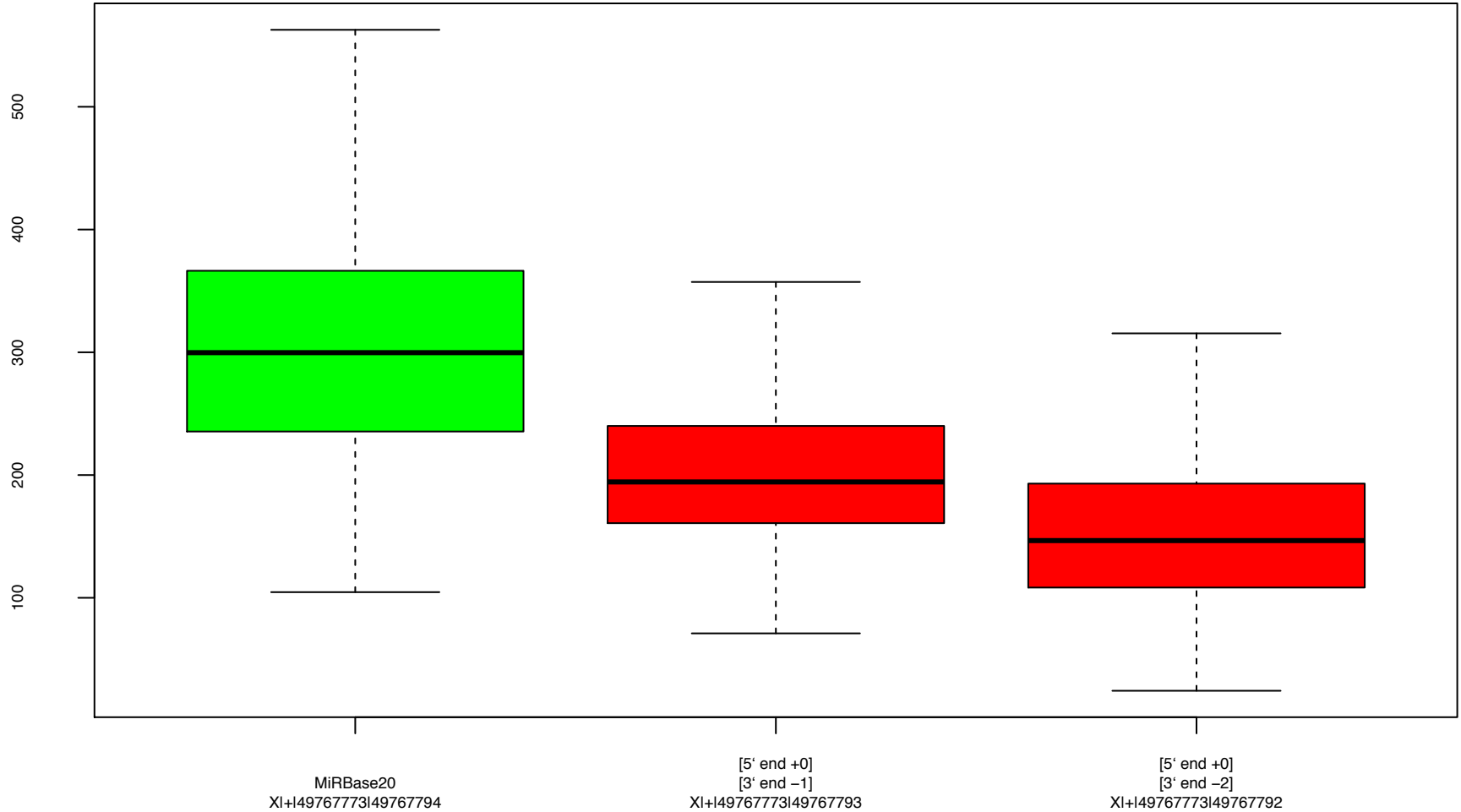
isomiRs

# MIMAT0000092\_1=hsa-miR-92a-3p=MI0000094



# MIMAT0002888=hsa-miR-532-5p=MI0003205

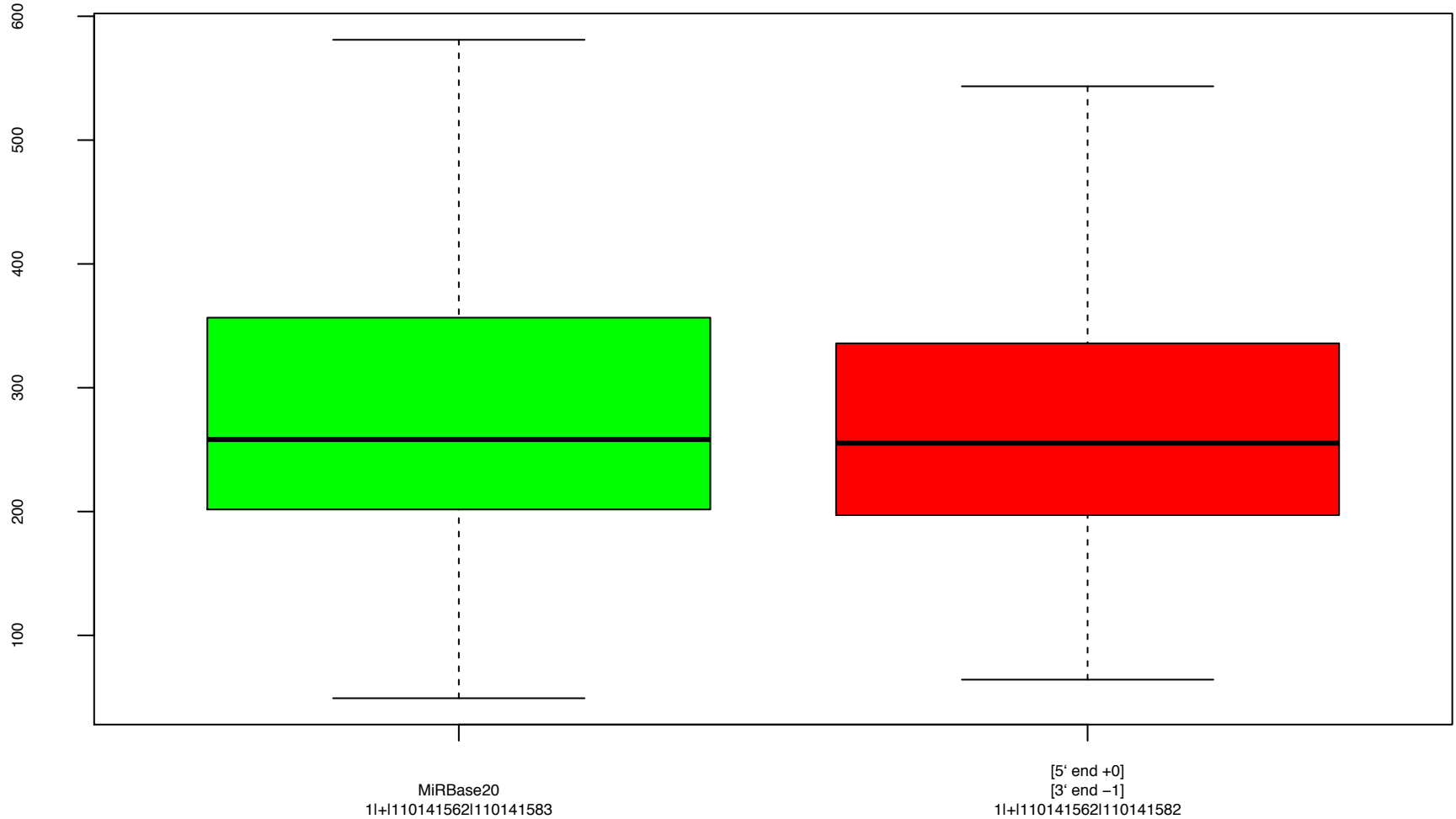
Quantile Normalized Counts



isomiRs

# MIMAT0000227=hsa-miR-197-3p=MI0000239

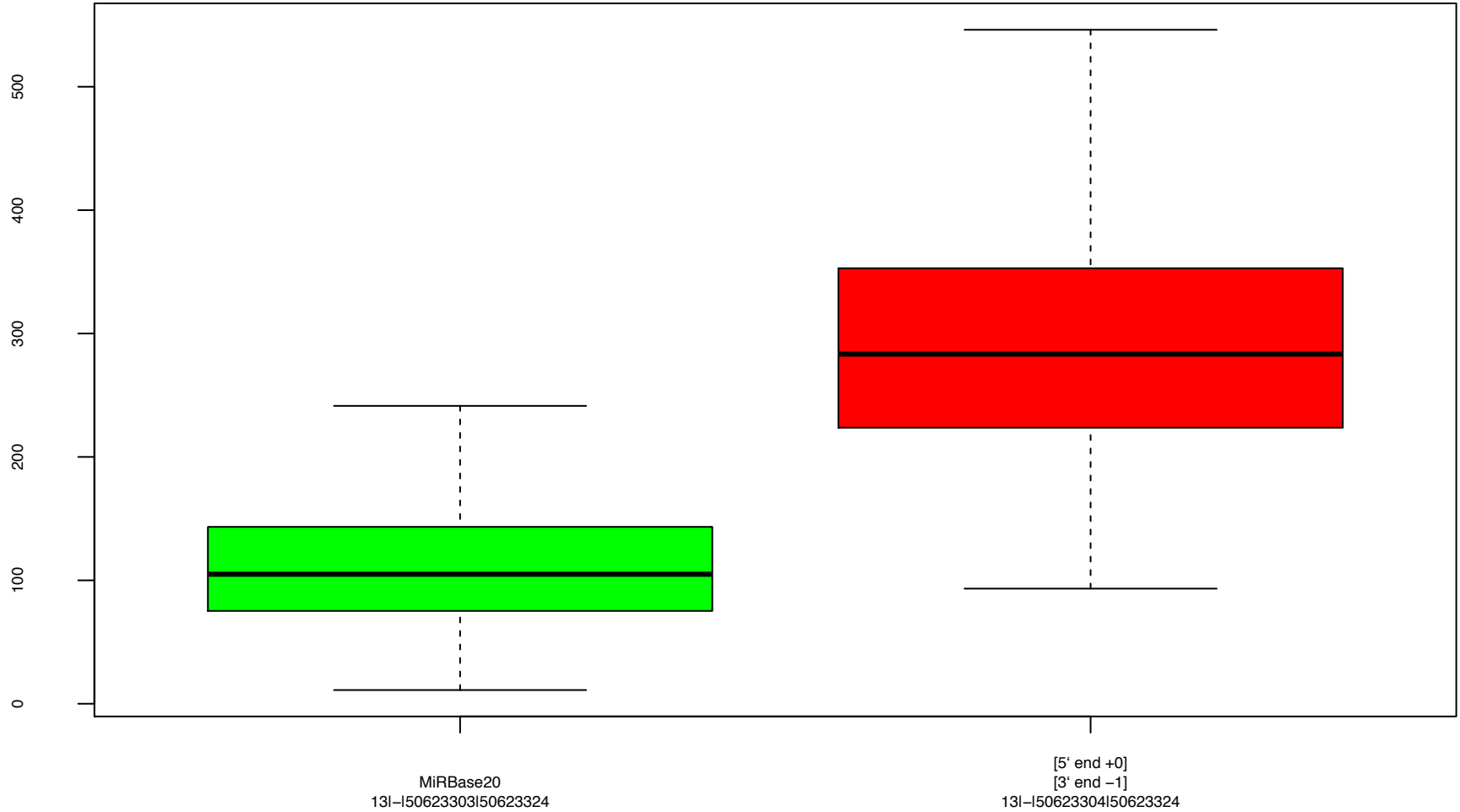
Quantile Normalized Counts



isomiRs

# MIMAT0000068=hsa-miR-15a-5p=MI0000069

Quantile Normalized Counts

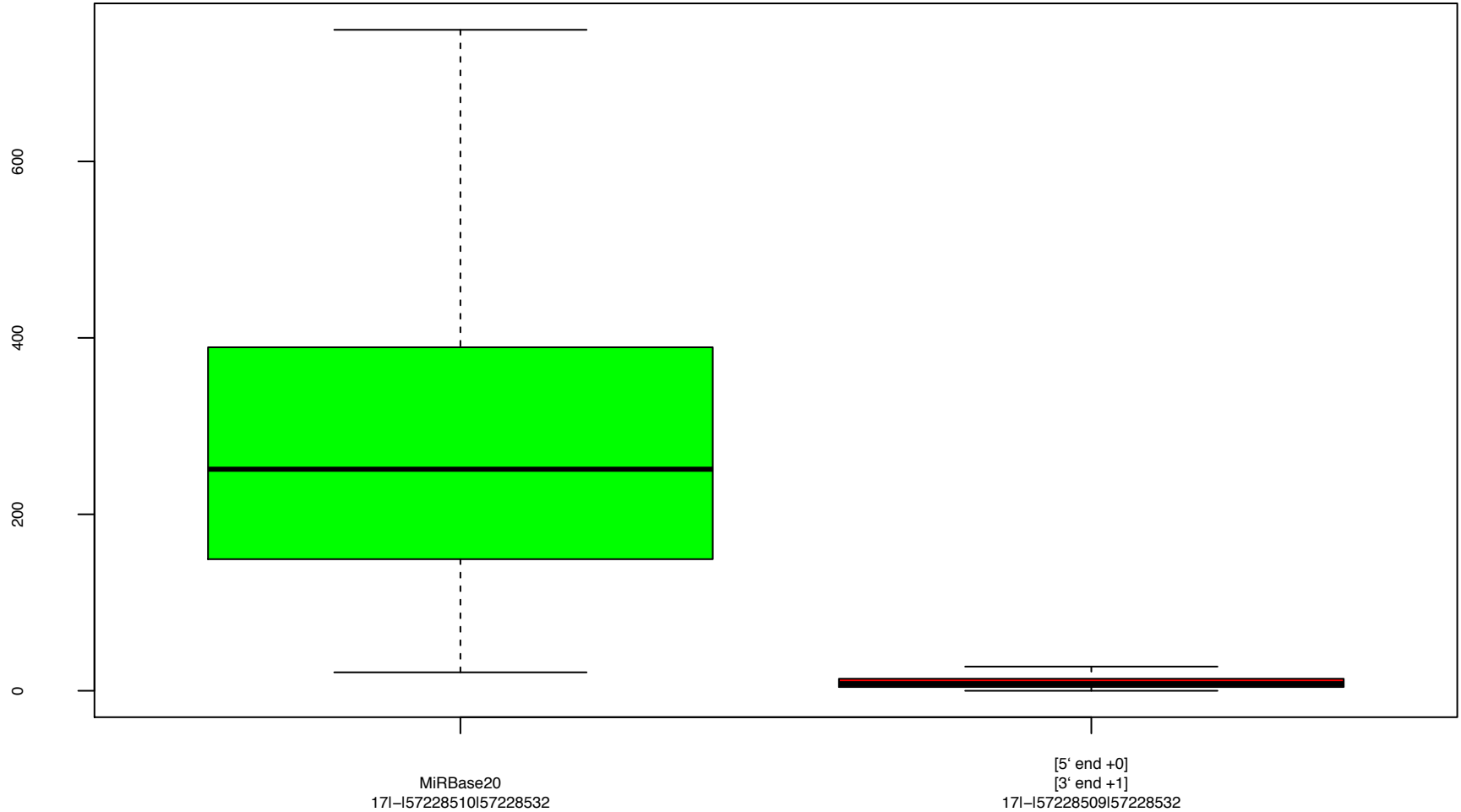


isomiRs



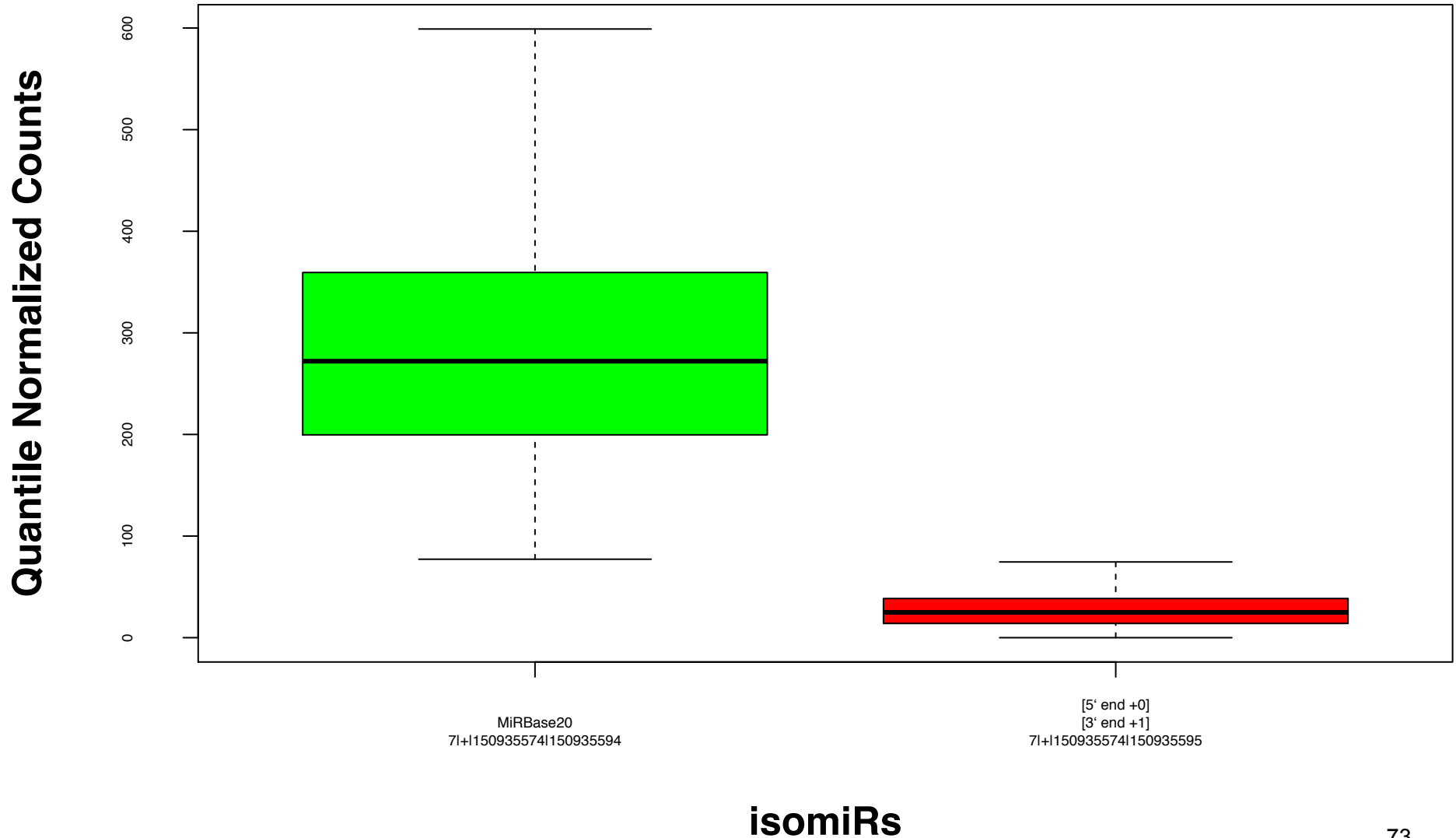
# MIMAT0000688=hsa-miR-301a-3p=MI0000745

Quantile Normalized Counts

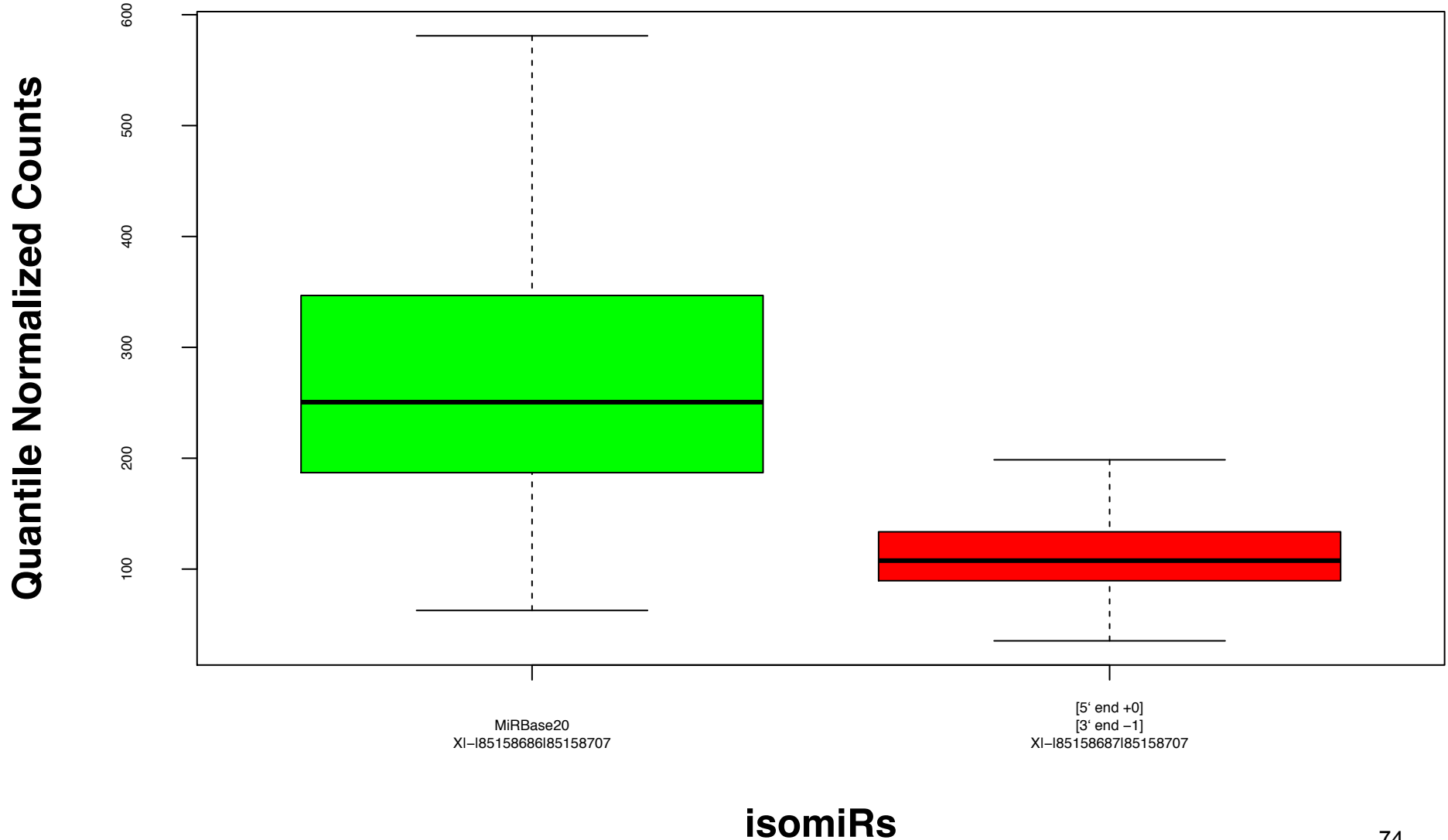


isomiRs

# MIMAT0004819=hsa-miR-671-3p=MI0003760

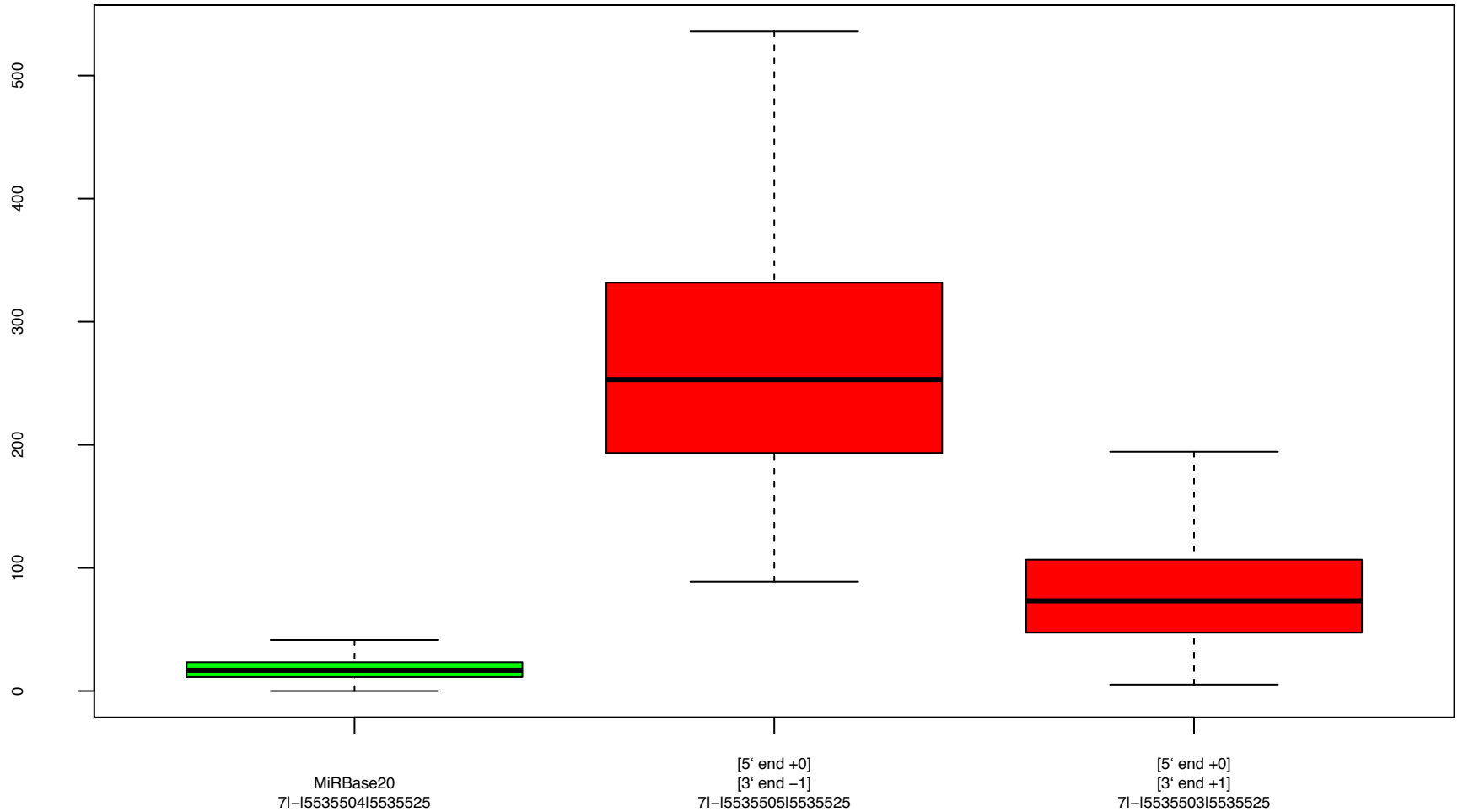


# MIMAT0000703=hsa-miR-361-5p=MI0000760



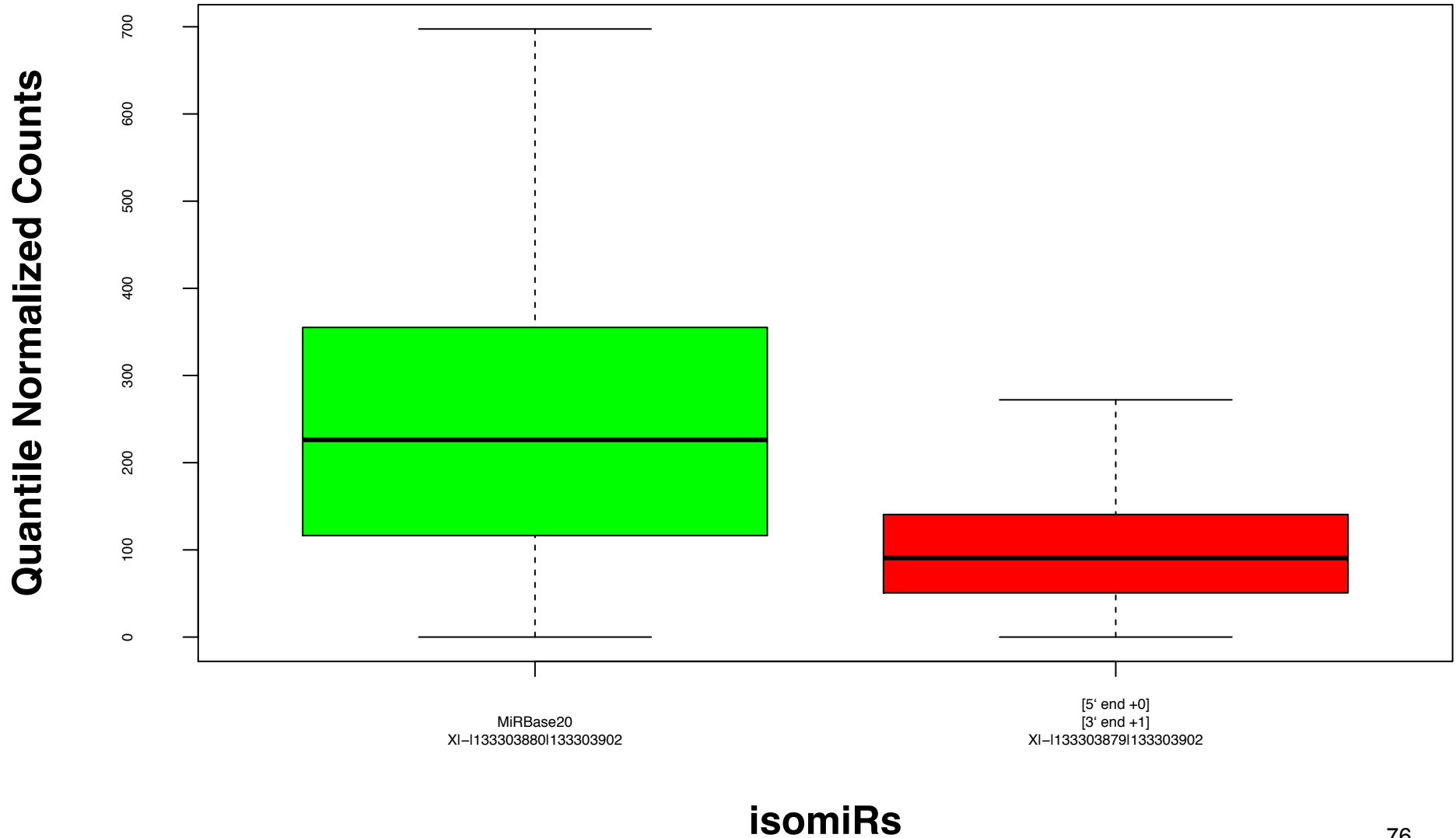
# MIMAT0004799=hsa-miR-589-5p=MI0003599

Quantile Normalized Counts

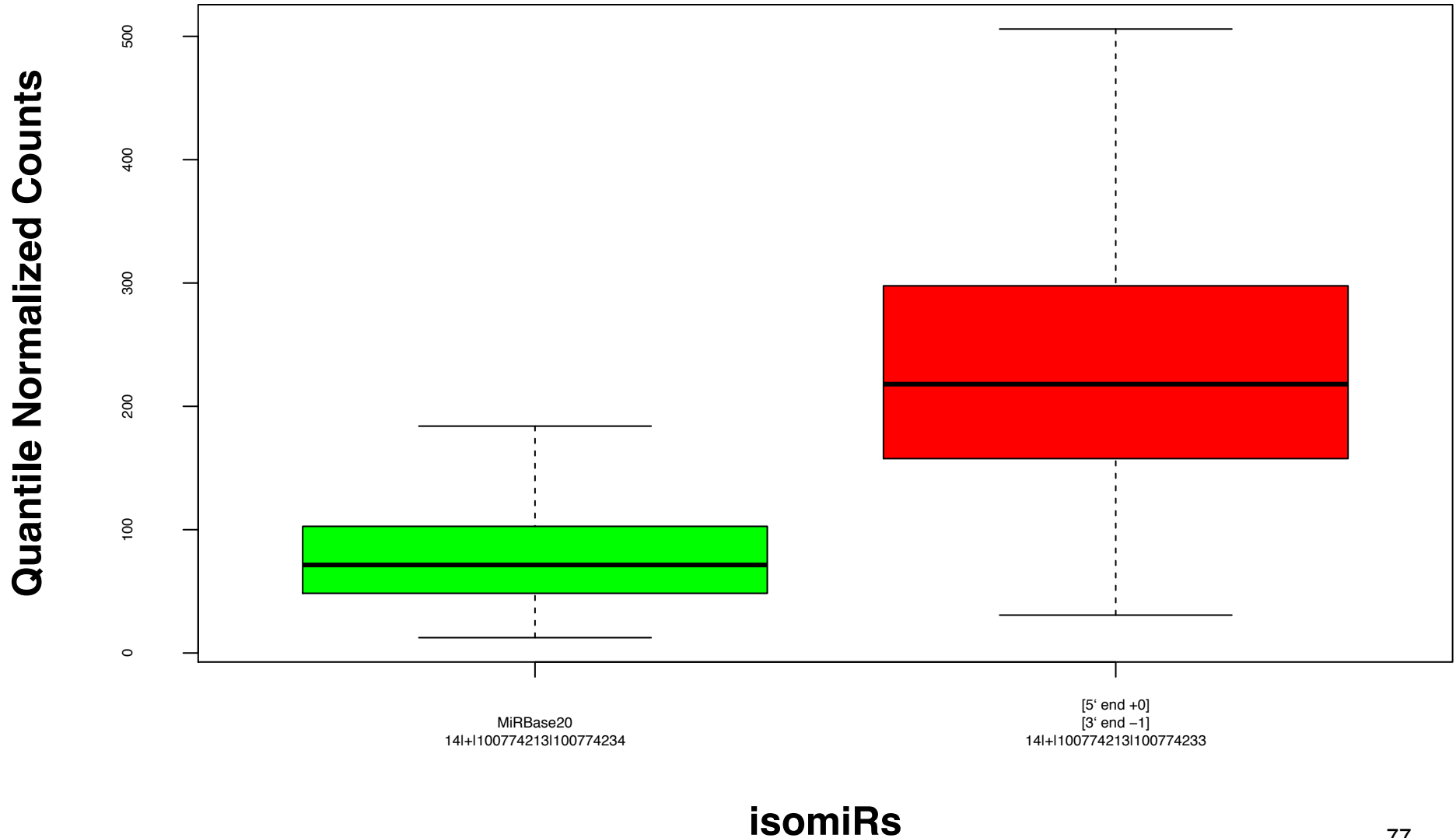


isomiRs

# MIMAT0001413=hsa-miR-20b-5p=MI0001519

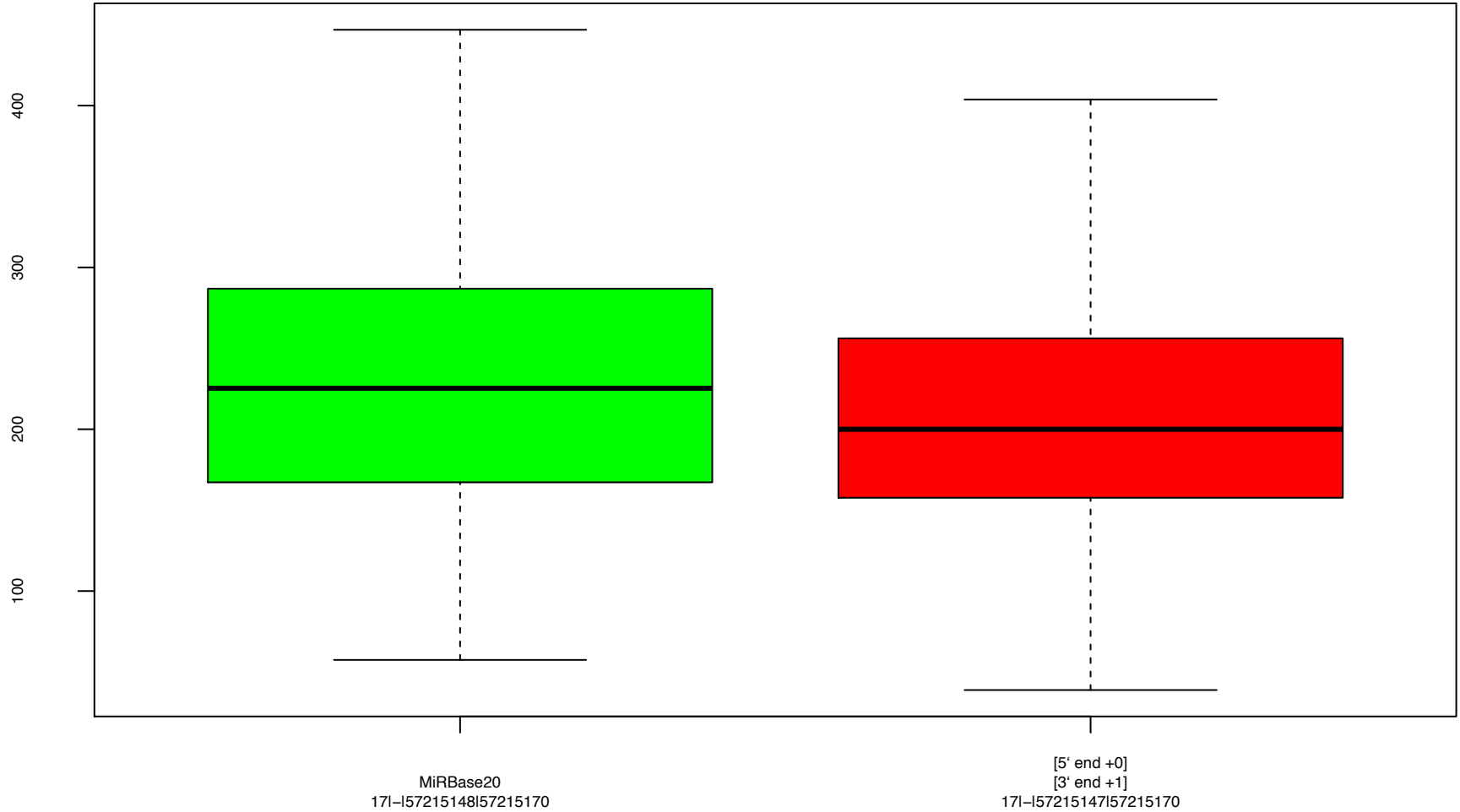


# MIMAT0000772=hsa-miR-345-5p=MI0000825



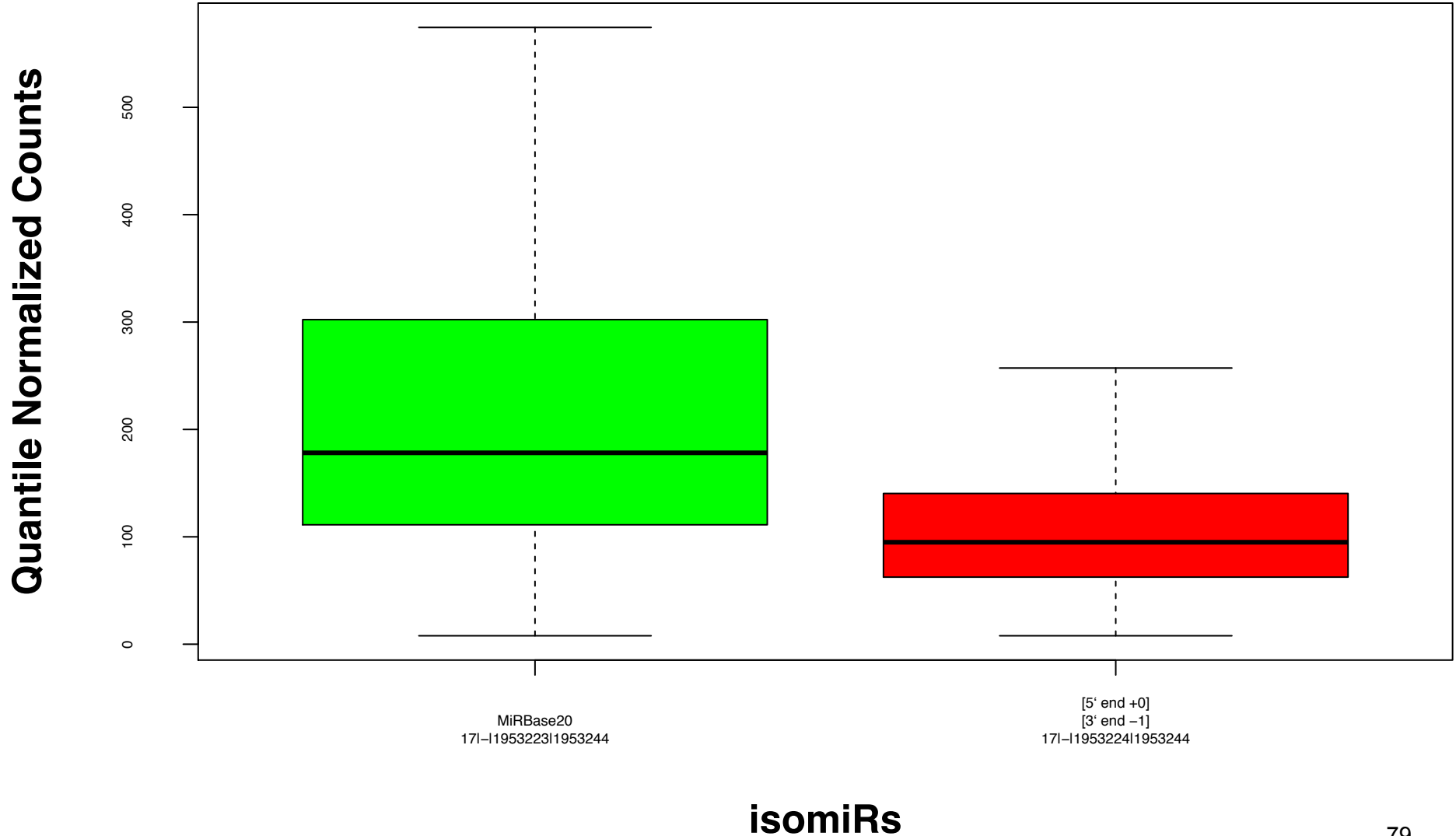
# MIMAT0003885=hsa-miR-454-3p=MI0003820

Quantile Normalized Counts



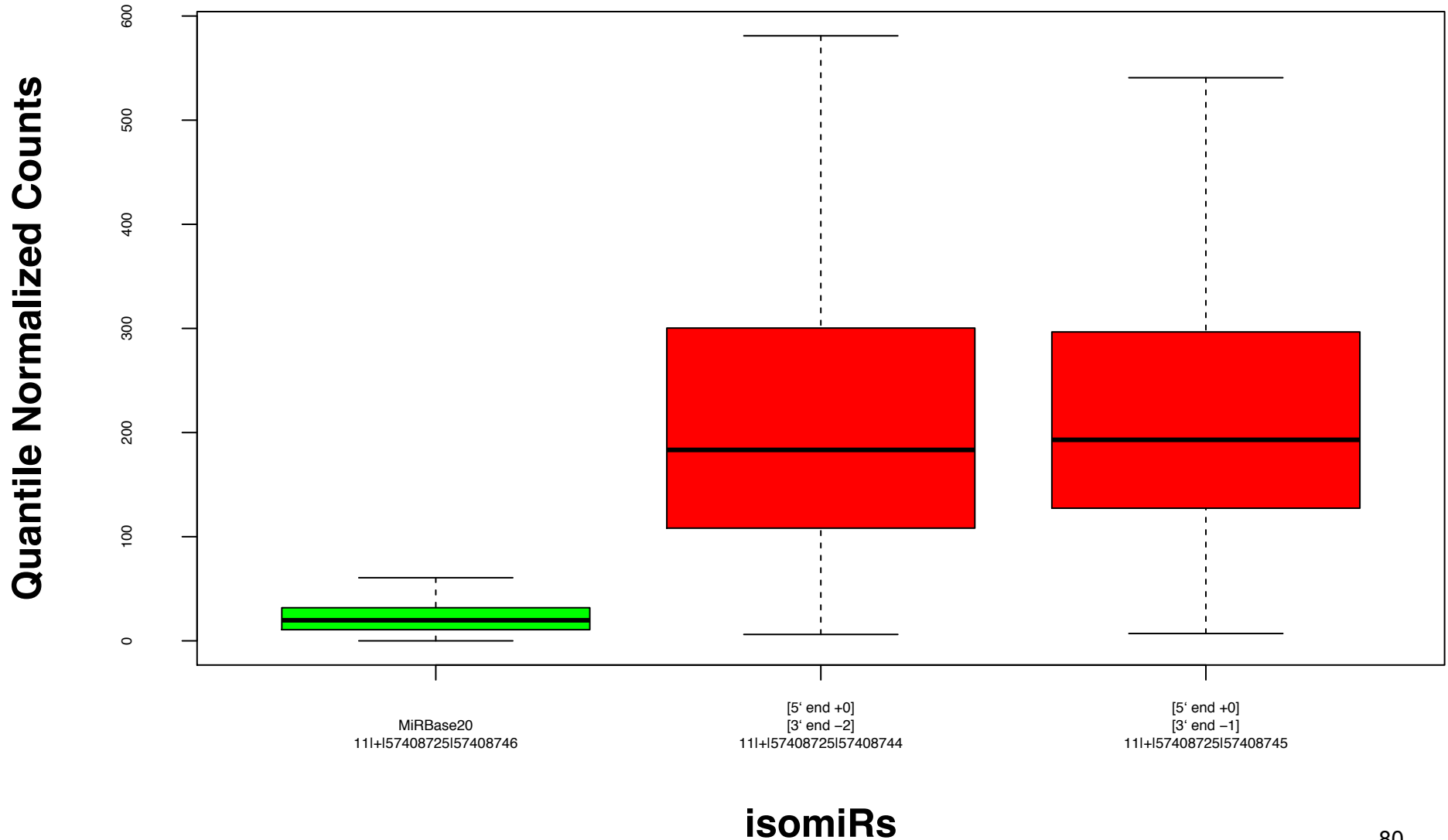
isomiRs

# MIMAT0000426=hsa-miR-132-3p=MI0000449

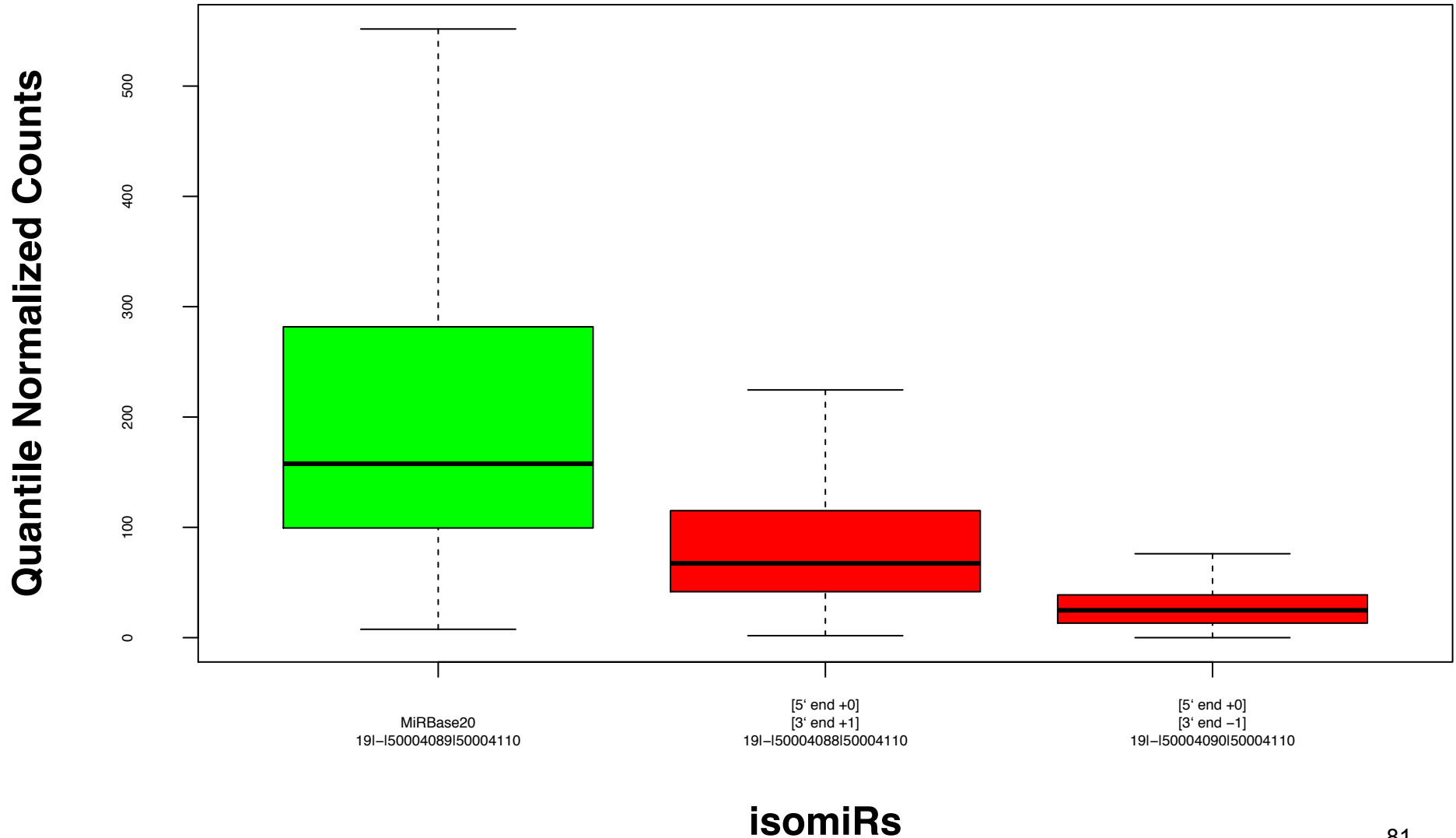




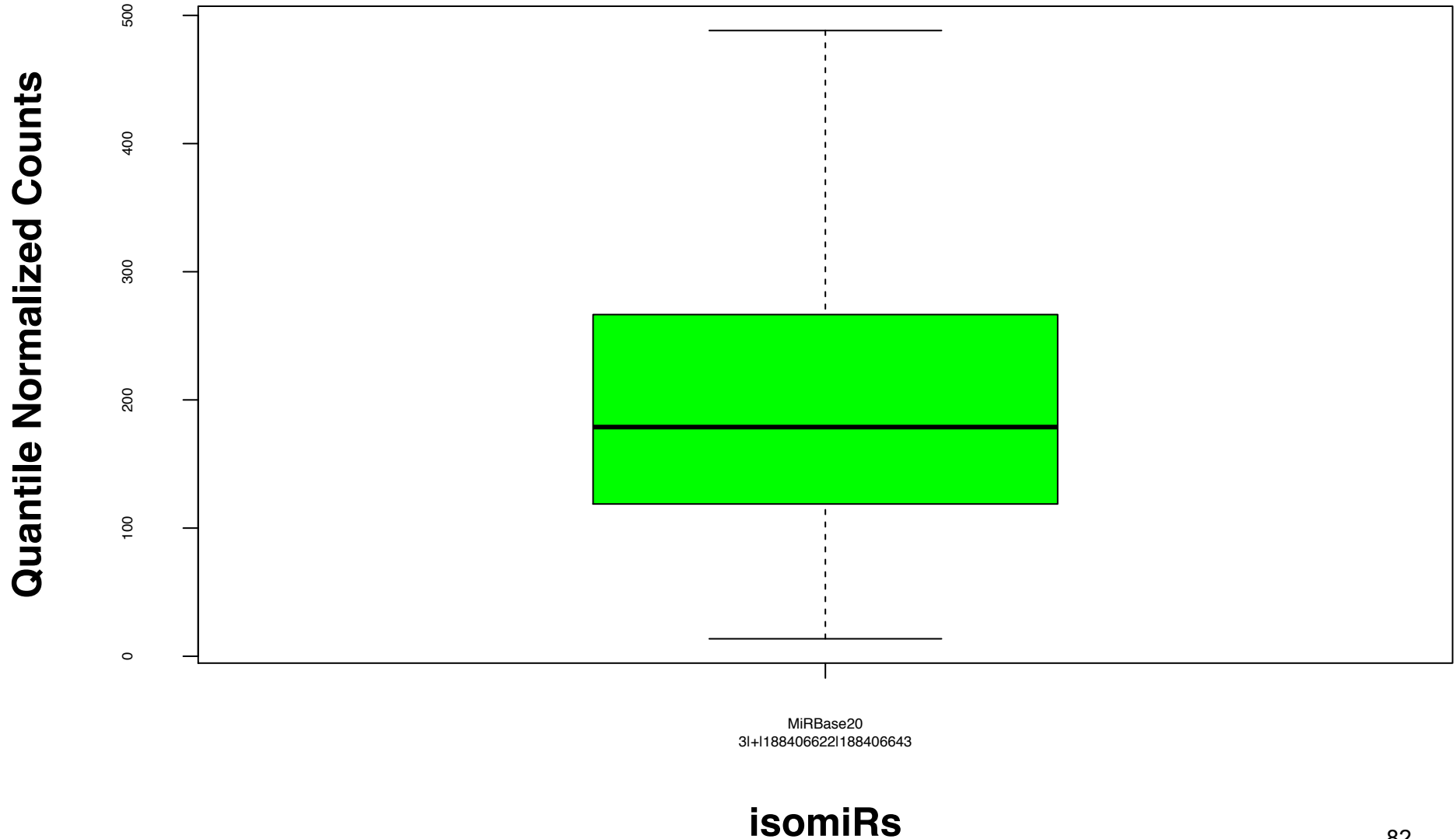
# MIMAT0000425=hsa-miR-130a-3p=MI0000448



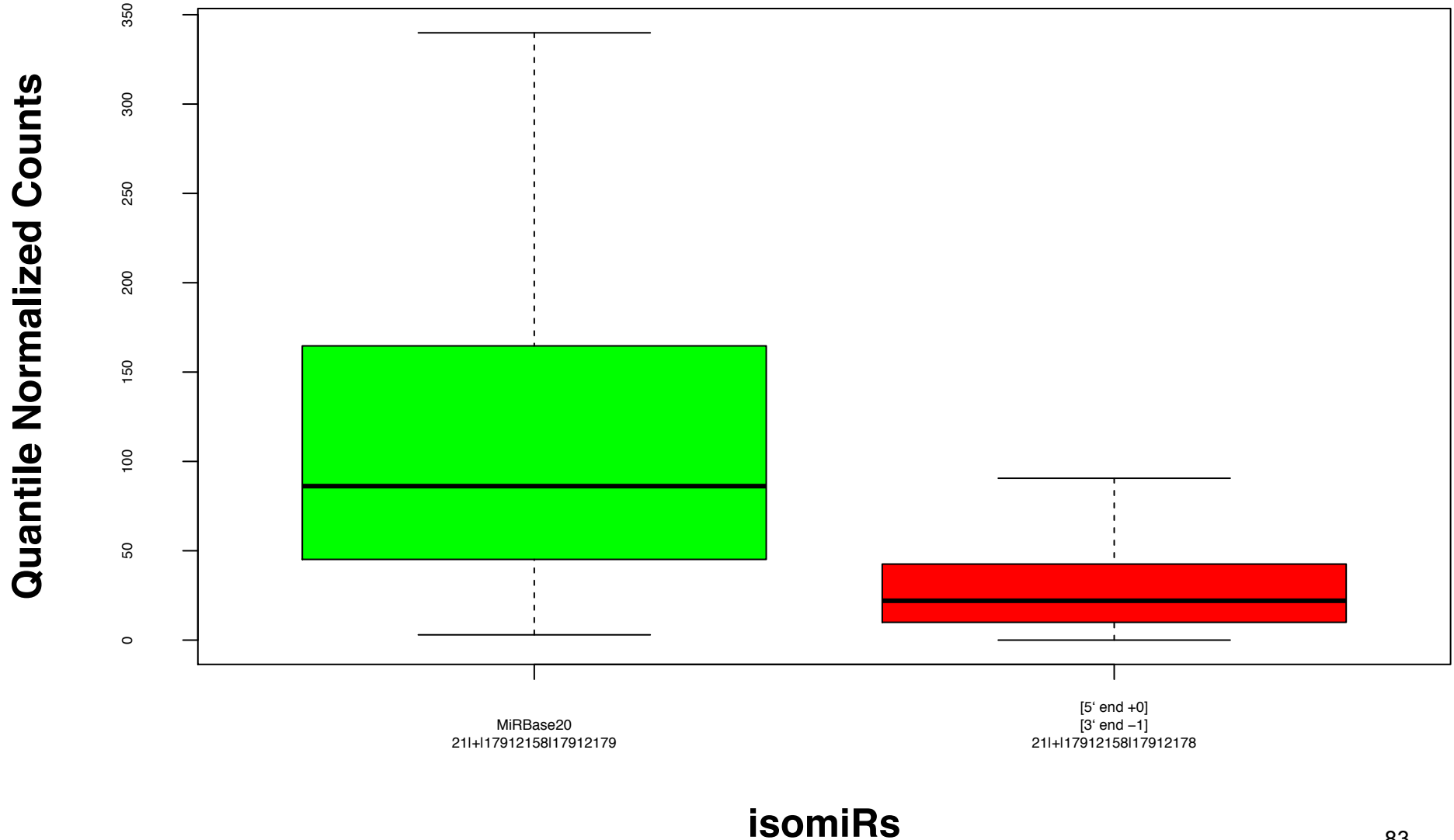
# MIMAT0000451=hsa-miR-150-5p=MI0000479



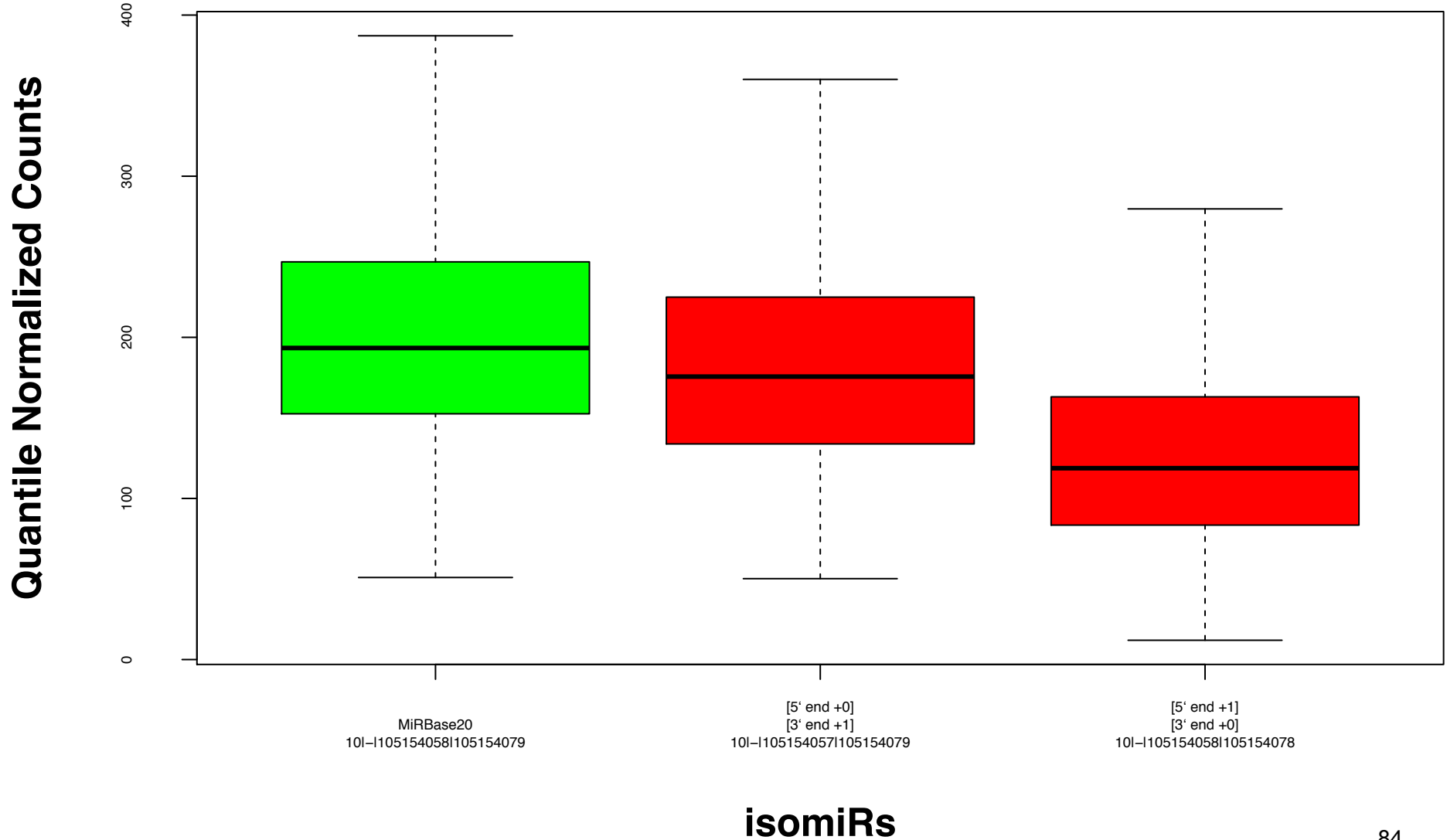
# MIMAT0004502=hsa-miR-28-3p=MI0000086



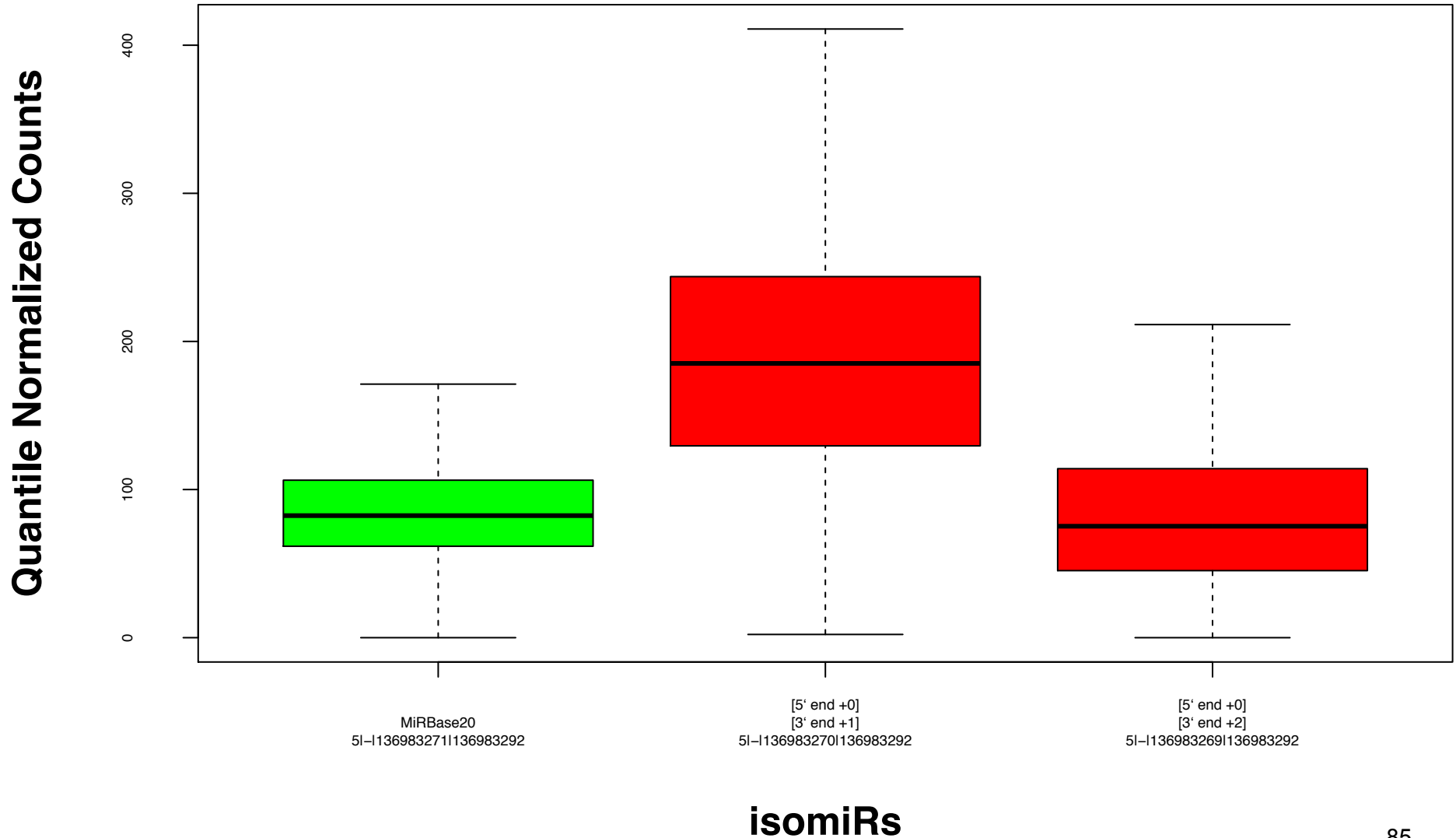
# MIMAT0000064=hsa-let-7c-5p=MI0000064



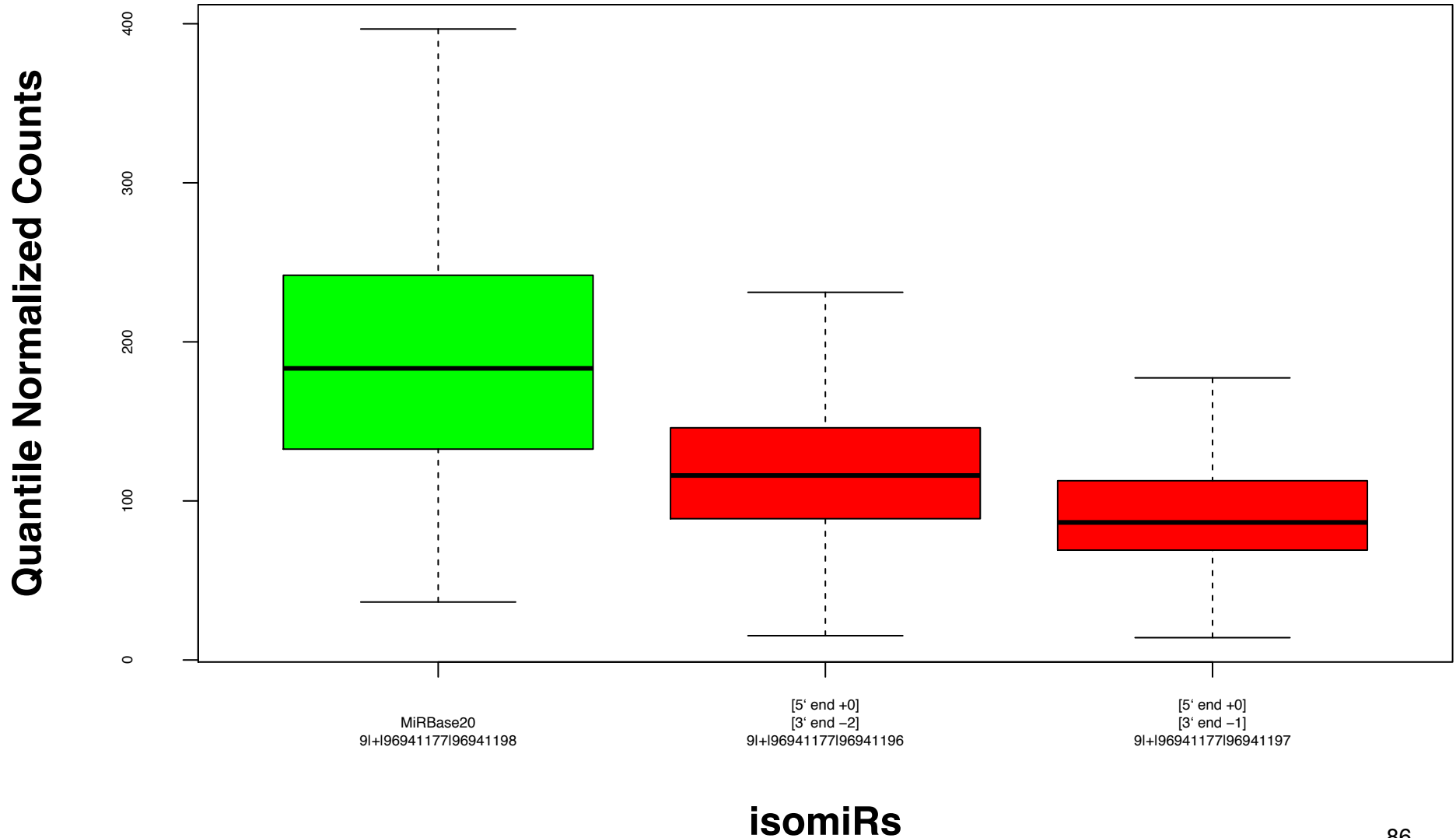
# MIMAT0005951=hsa-miR-1307-3p=MI0006444



# MIMAT0004911=hsa-miR-874-3p=MI0005532

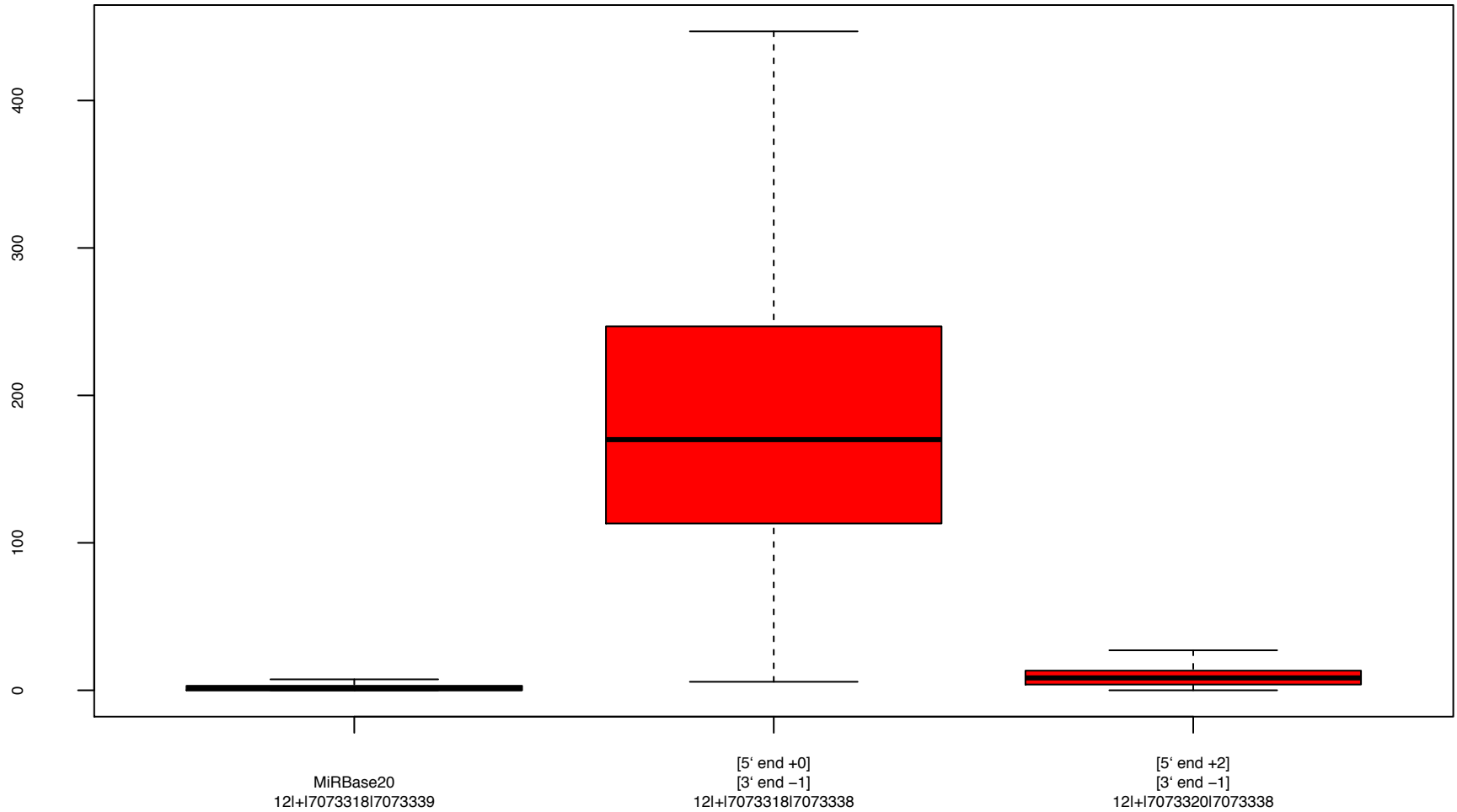


# MIMAT0004484=hsa-let-7d-3p=MI0000065



# MIMAT0000432=hsa-miR-141-3p=MI0000457

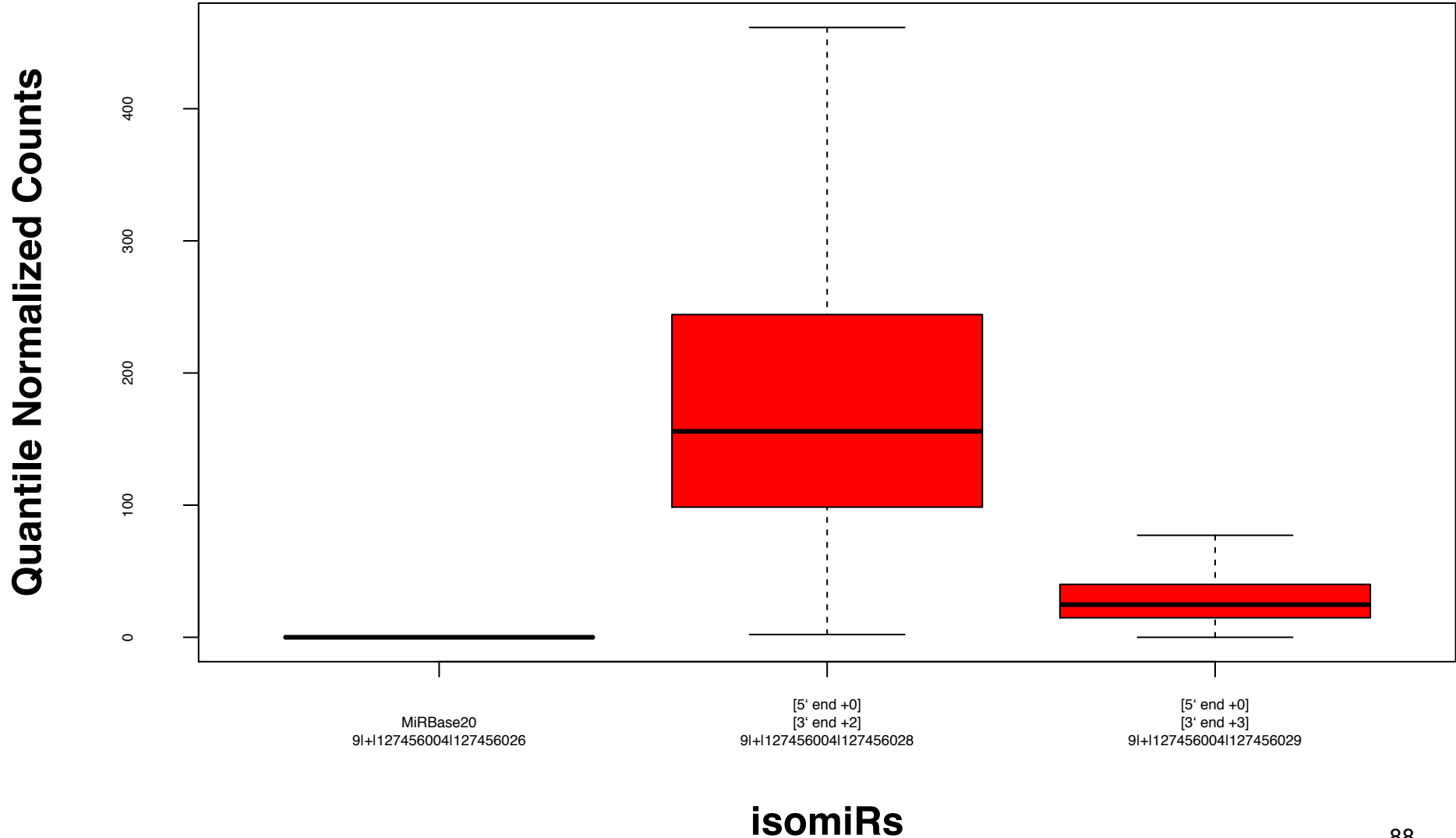
Quantile Normalized Counts



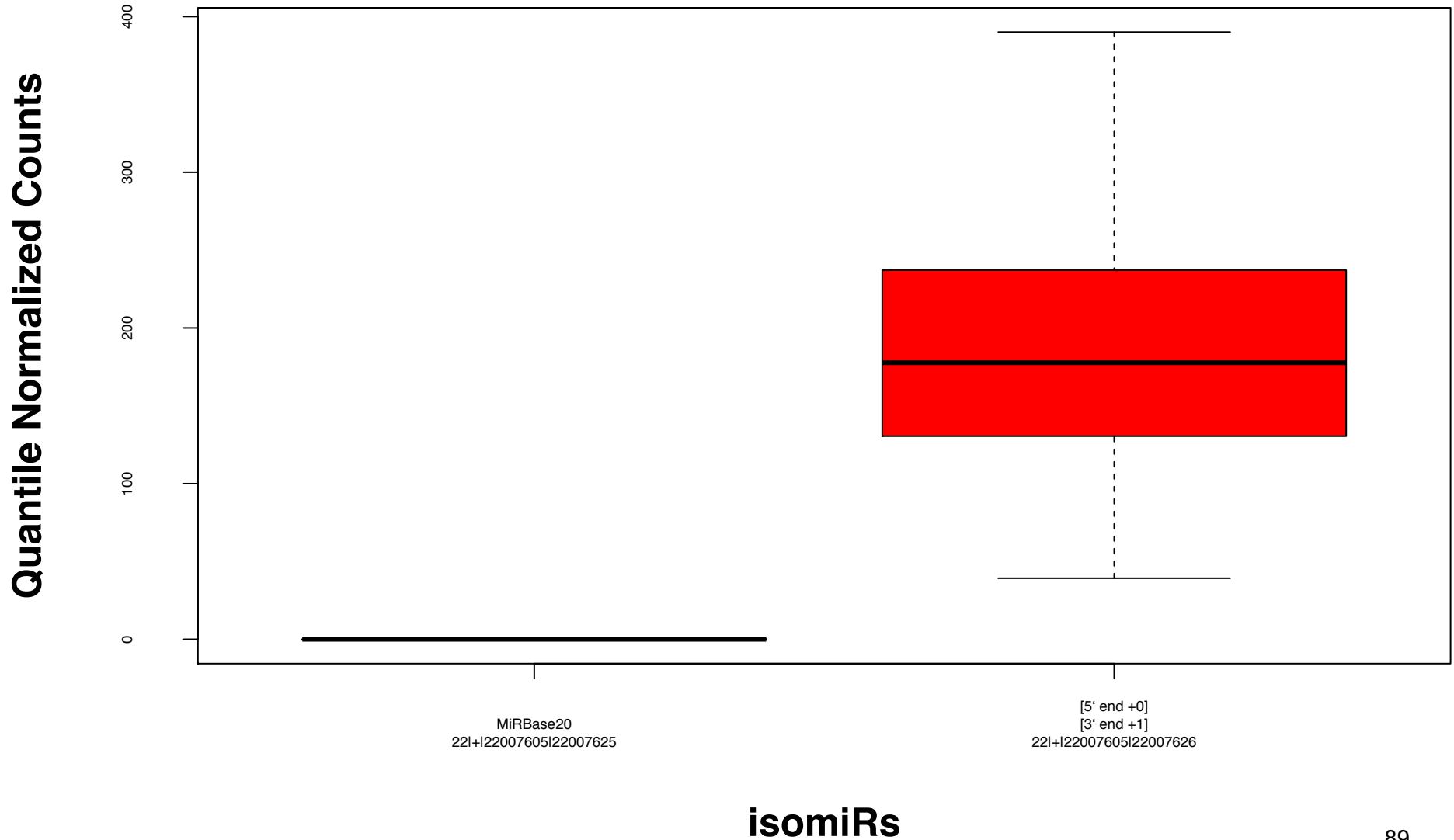
isomiRs



# MIMAT0000257\_1=hsa-miR-181b-5p=MI0000683

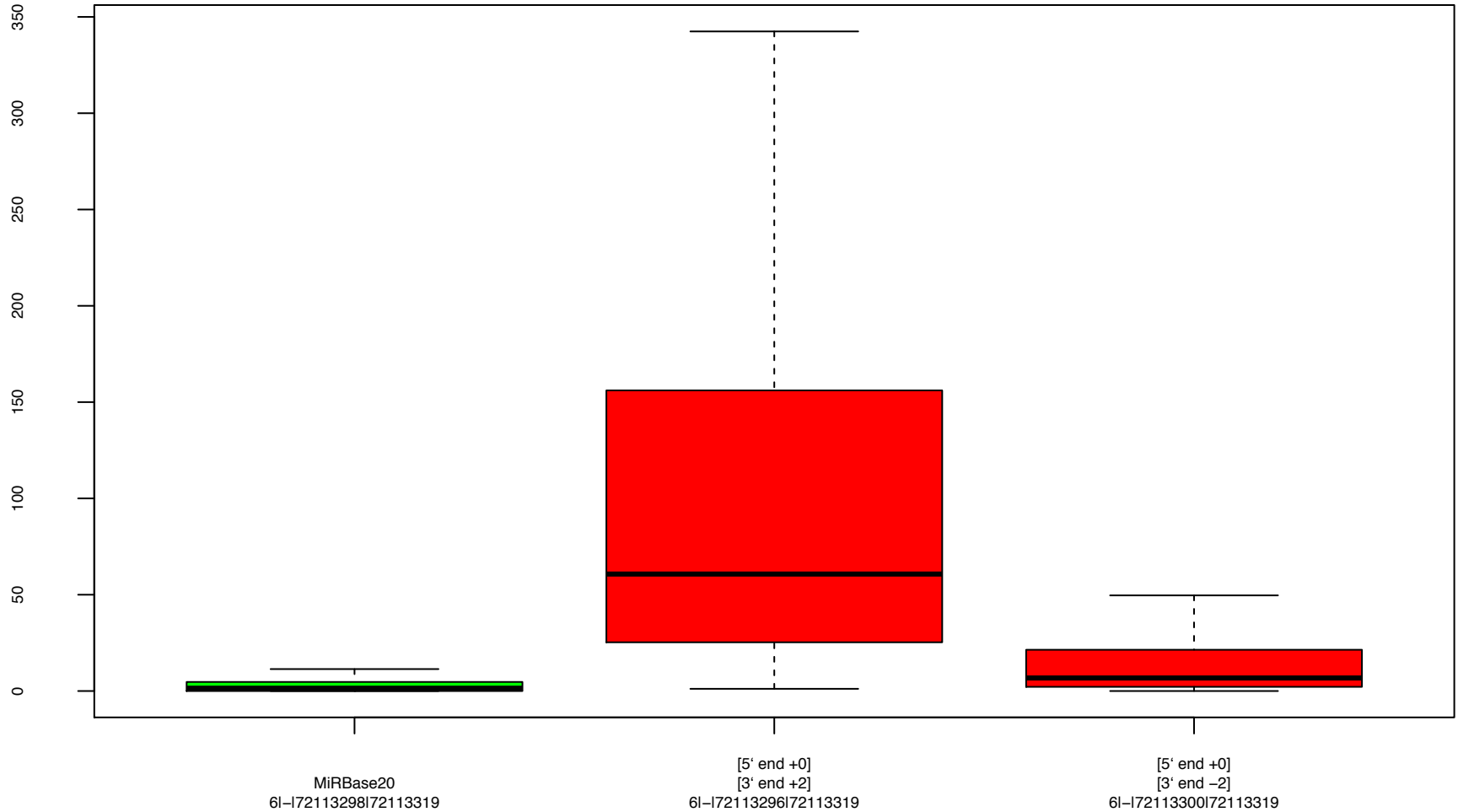


# MIMAT0004680=hsa-miR-130b-5p=MI0000748



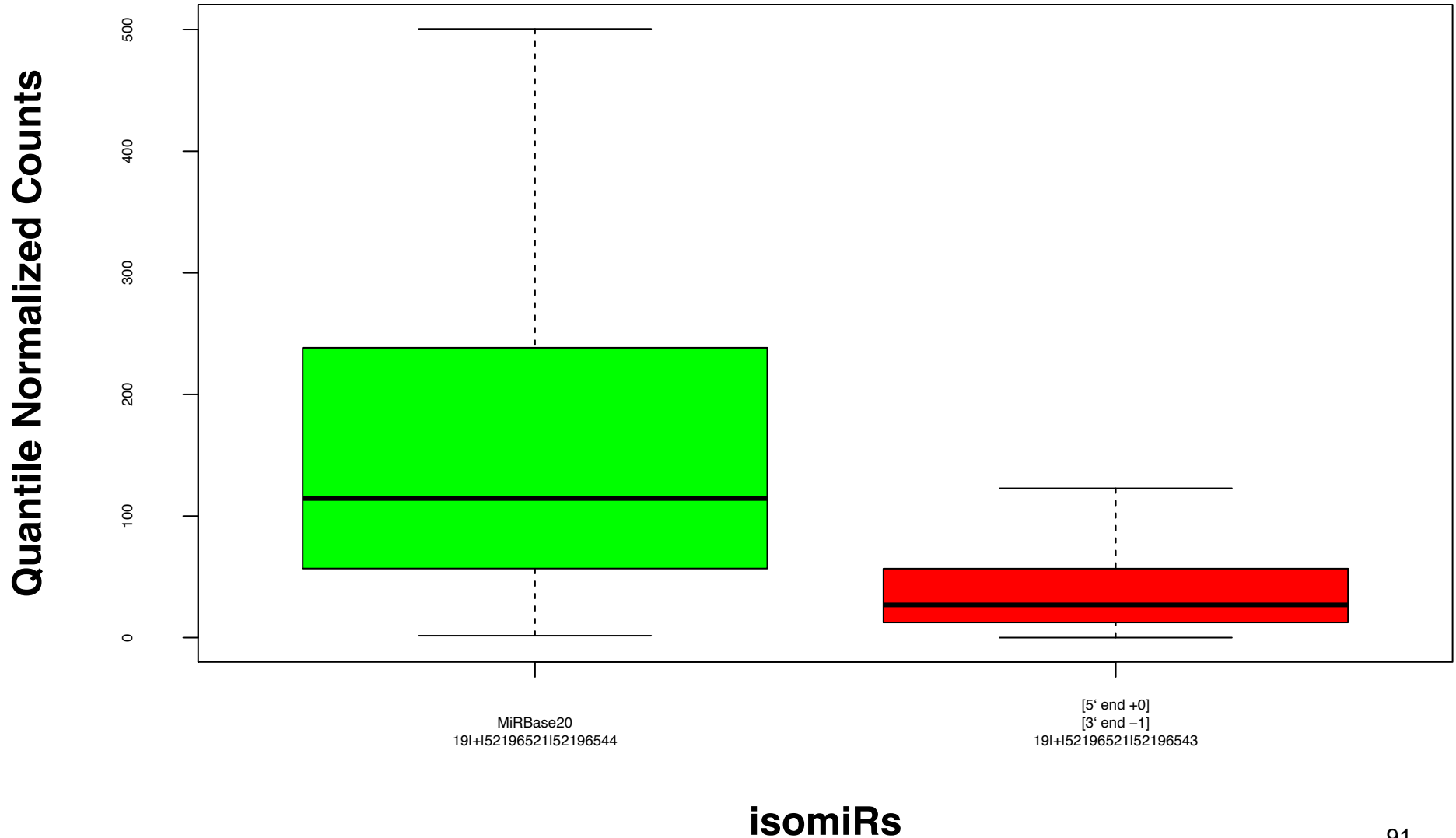
# MIMAT0000087=hsa-miR-30a-5p=MI0000088

Quantile Normalized Counts

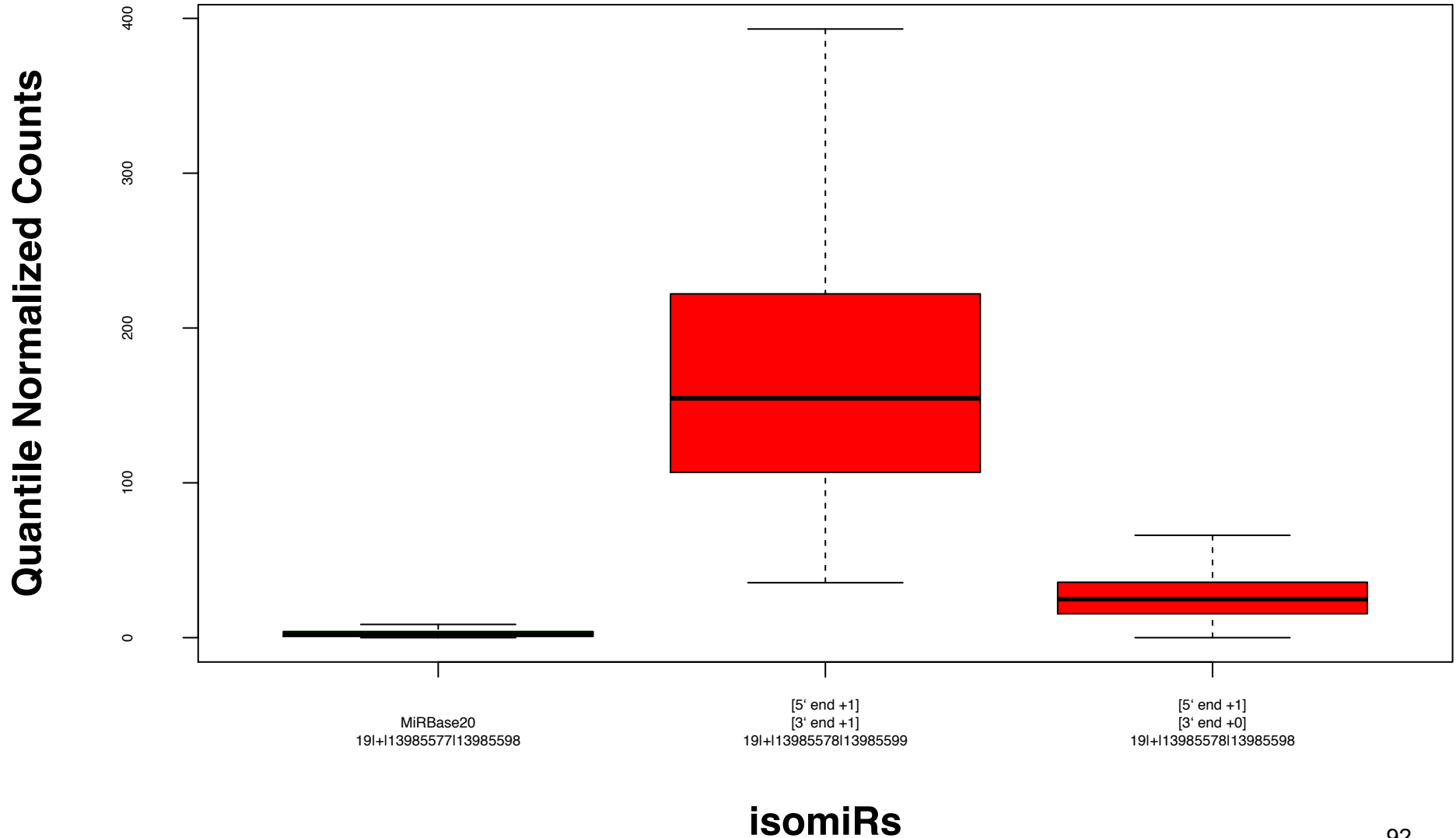


isomiRs

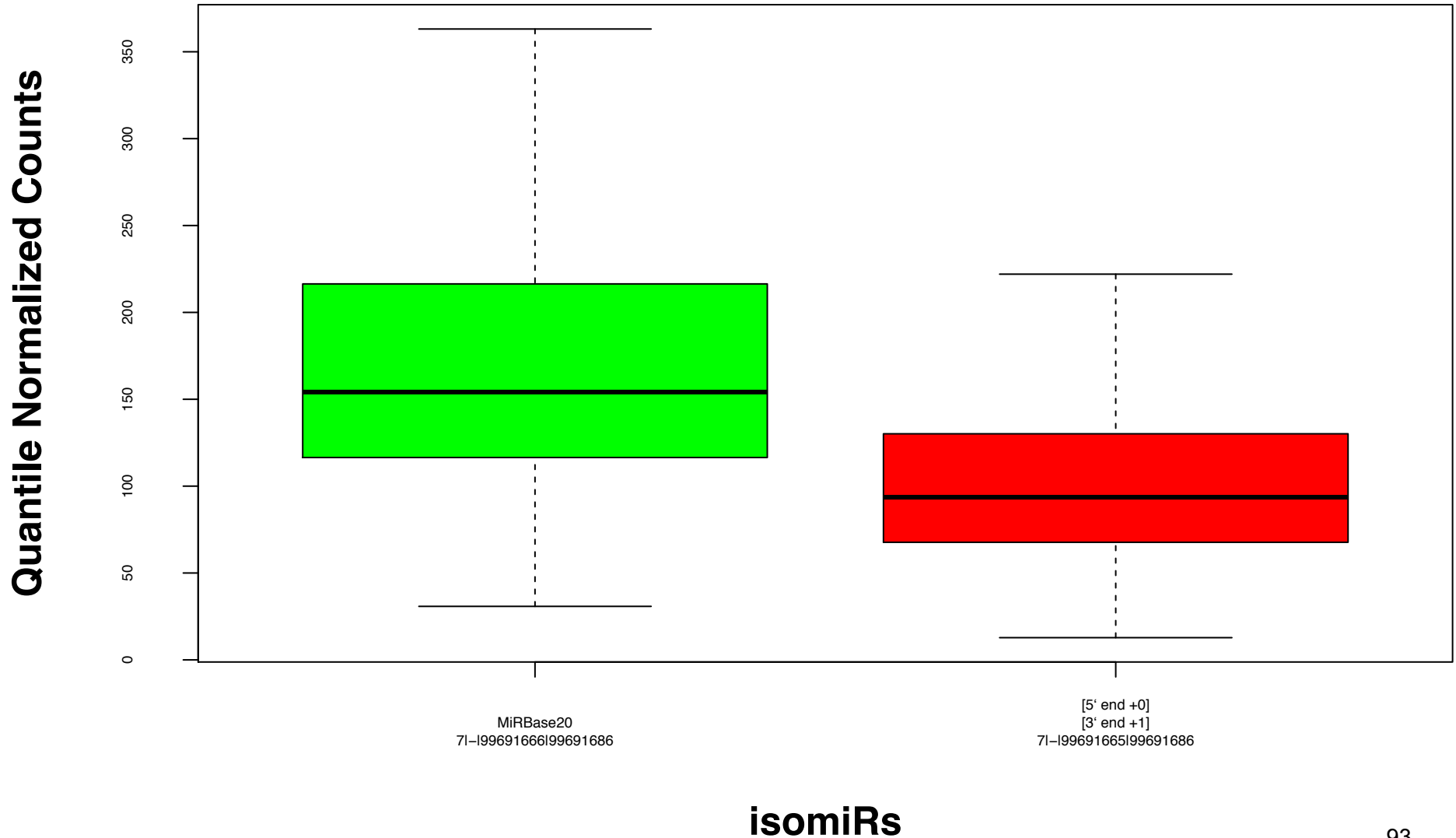
# MIMAT0000443=hsa-miR-125a-5p=MI0000469



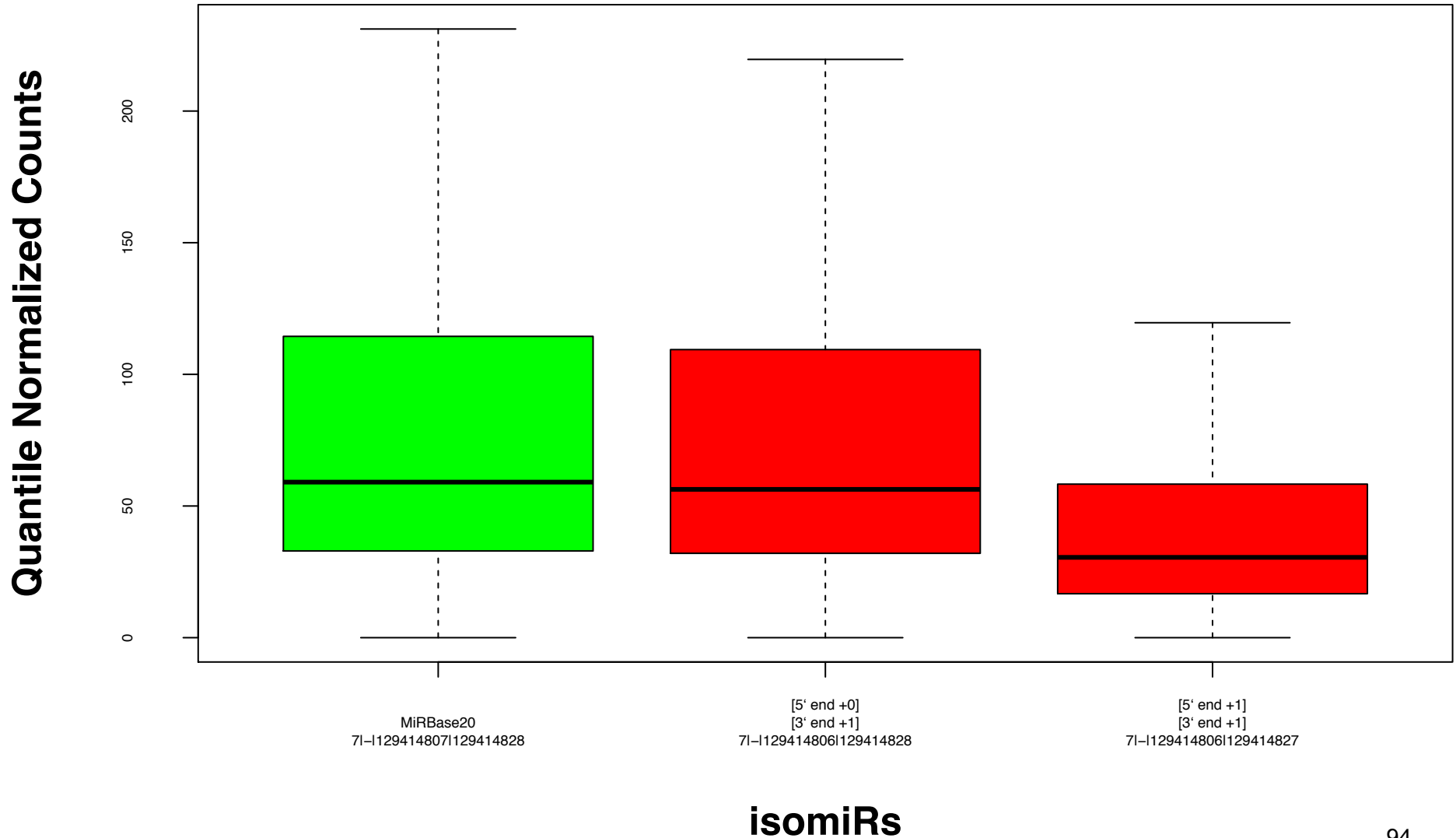
# MIMAT0004559=hsa-miR-181c-3p=MI0000271



# MIMAT0000680=hsa-miR-106b-5p=MI0000734

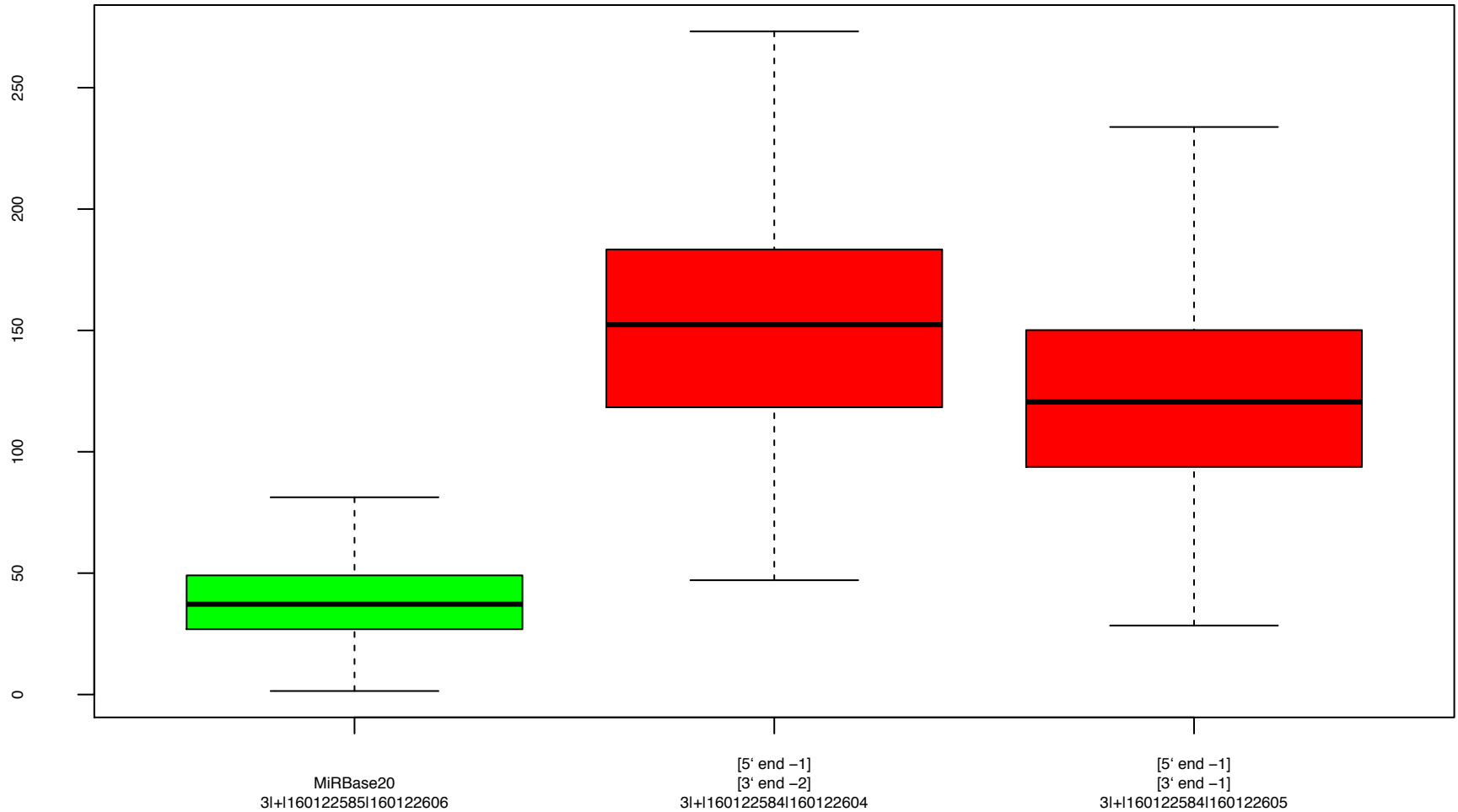


# MIMAT0000261=hsa-miR-183-5p=MI0000273



# MIMAT0004518=hsa-miR-16-2-3p=MI0000115

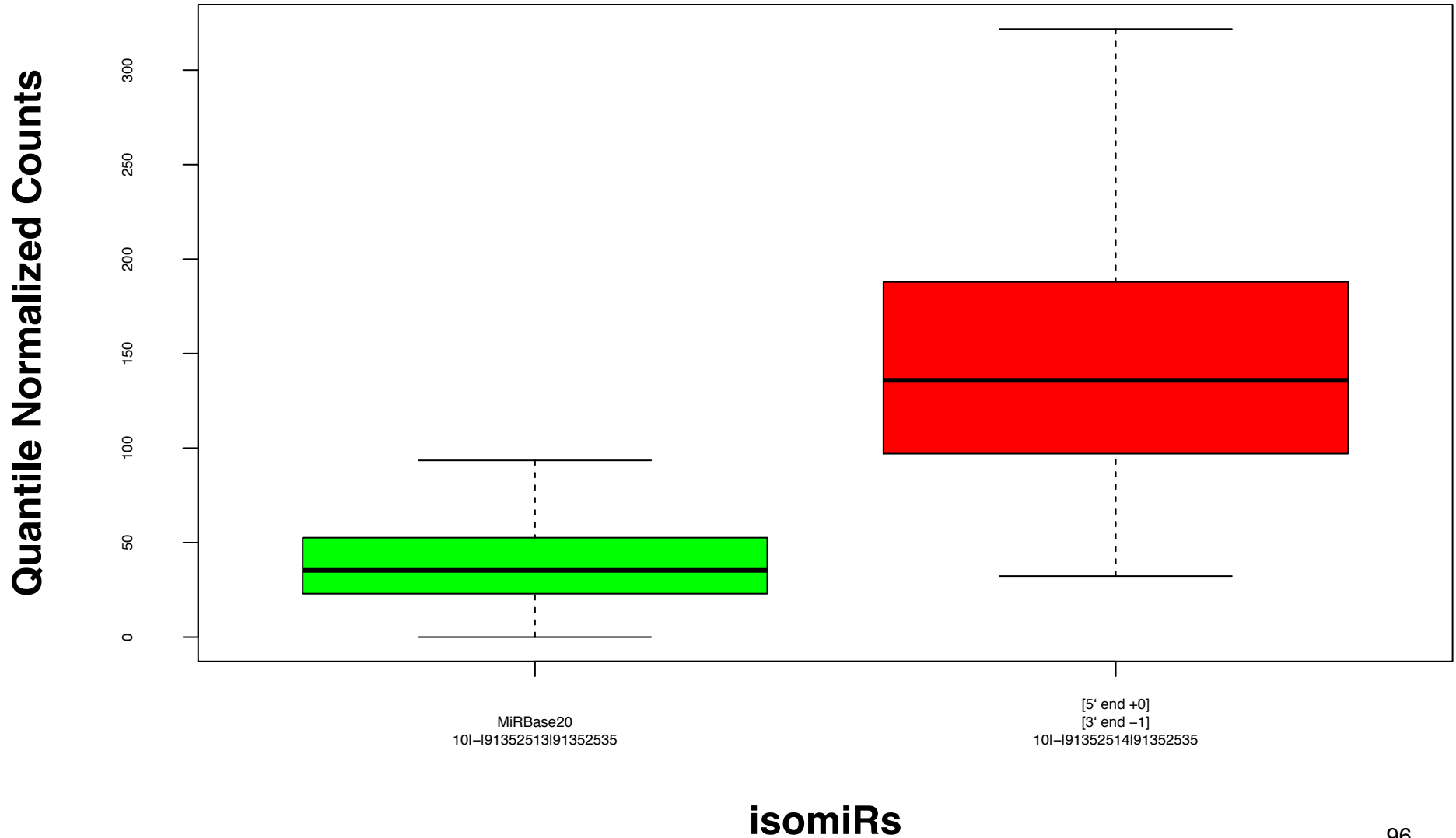
Quantile Normalized Counts



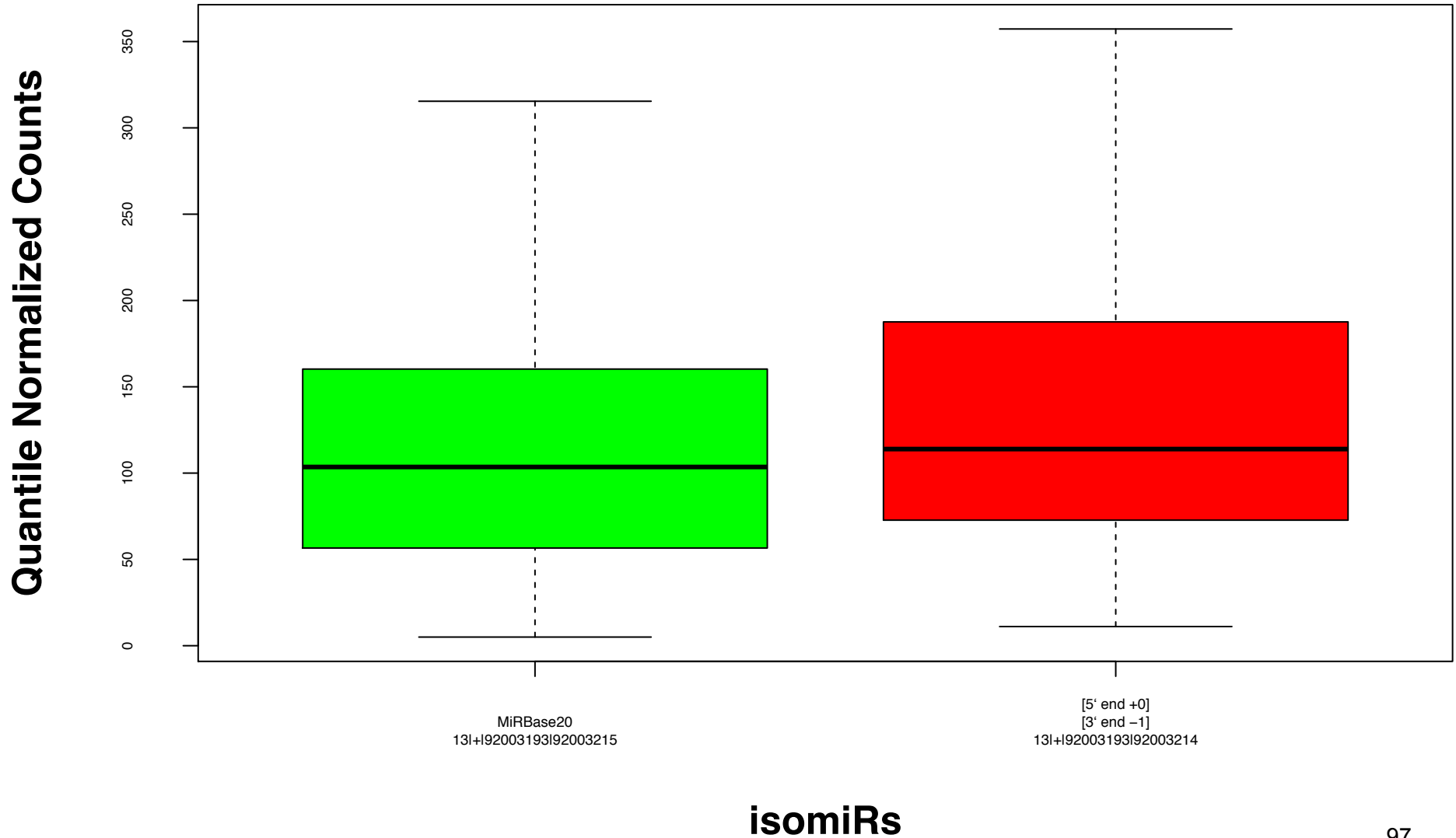
isomiRs



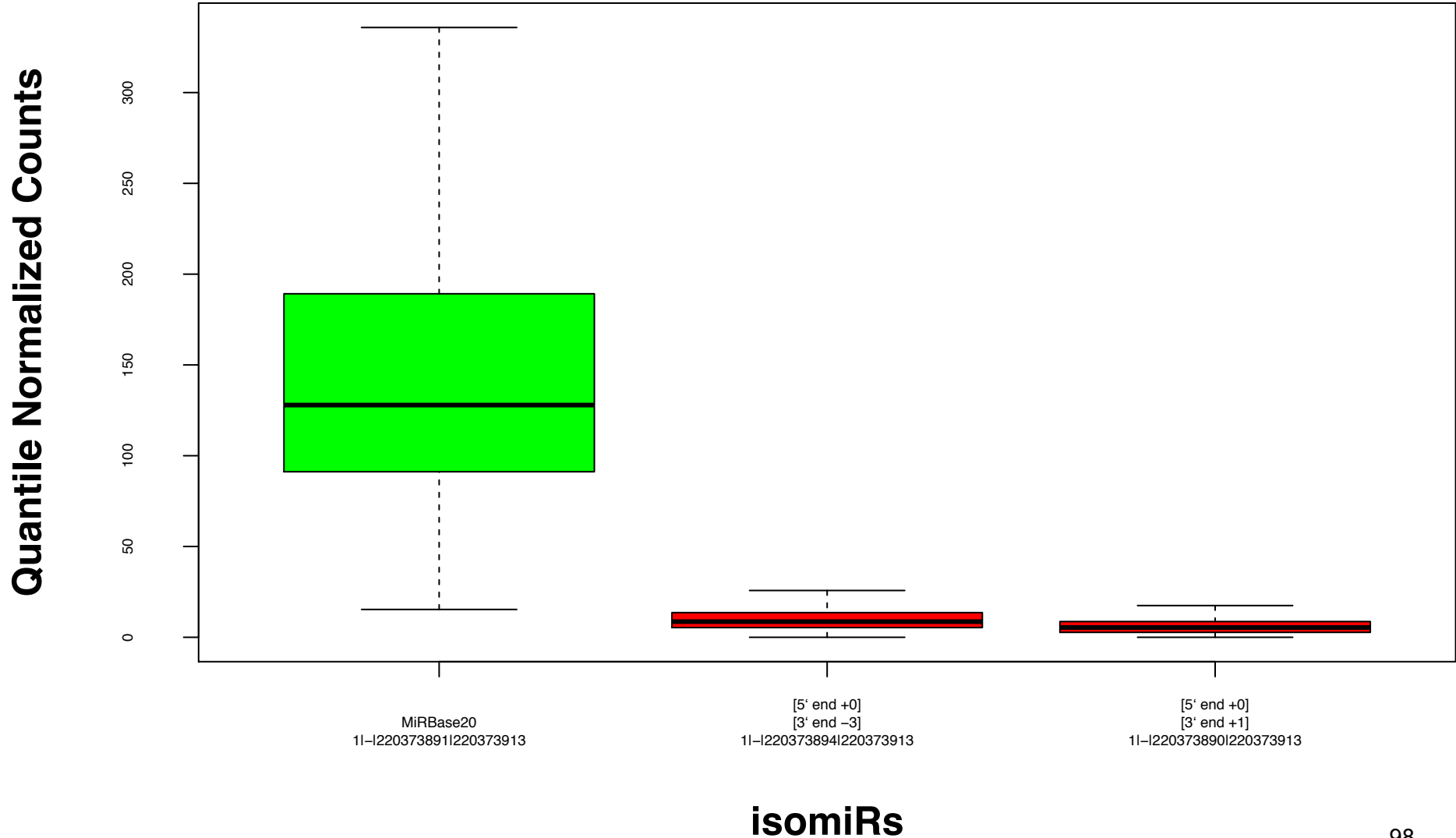
# MIMAT0000104=hsa-miR-107=MI0000114



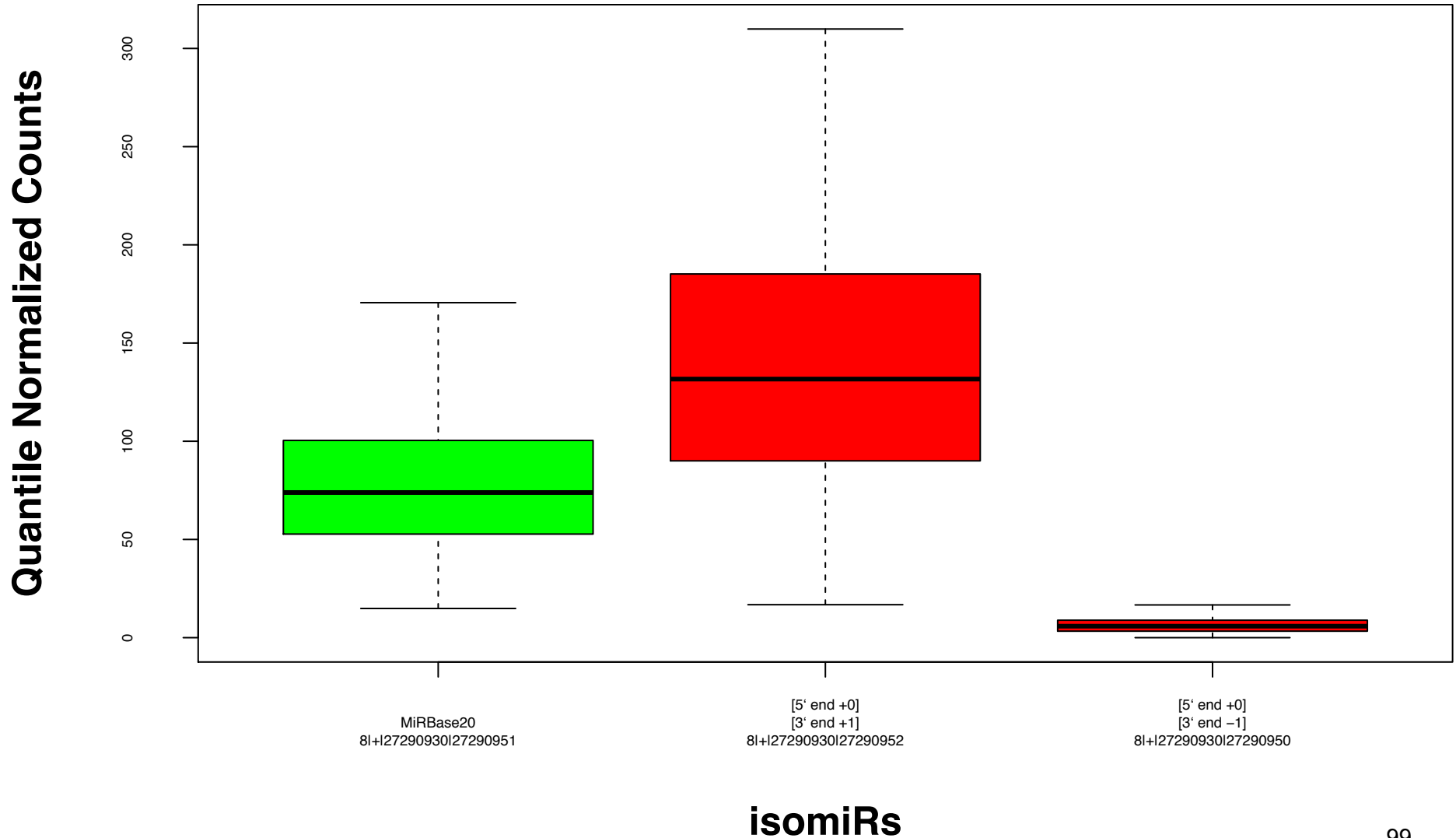
# MIMAT0000073=hsa-miR-19a-3p=MI0000073



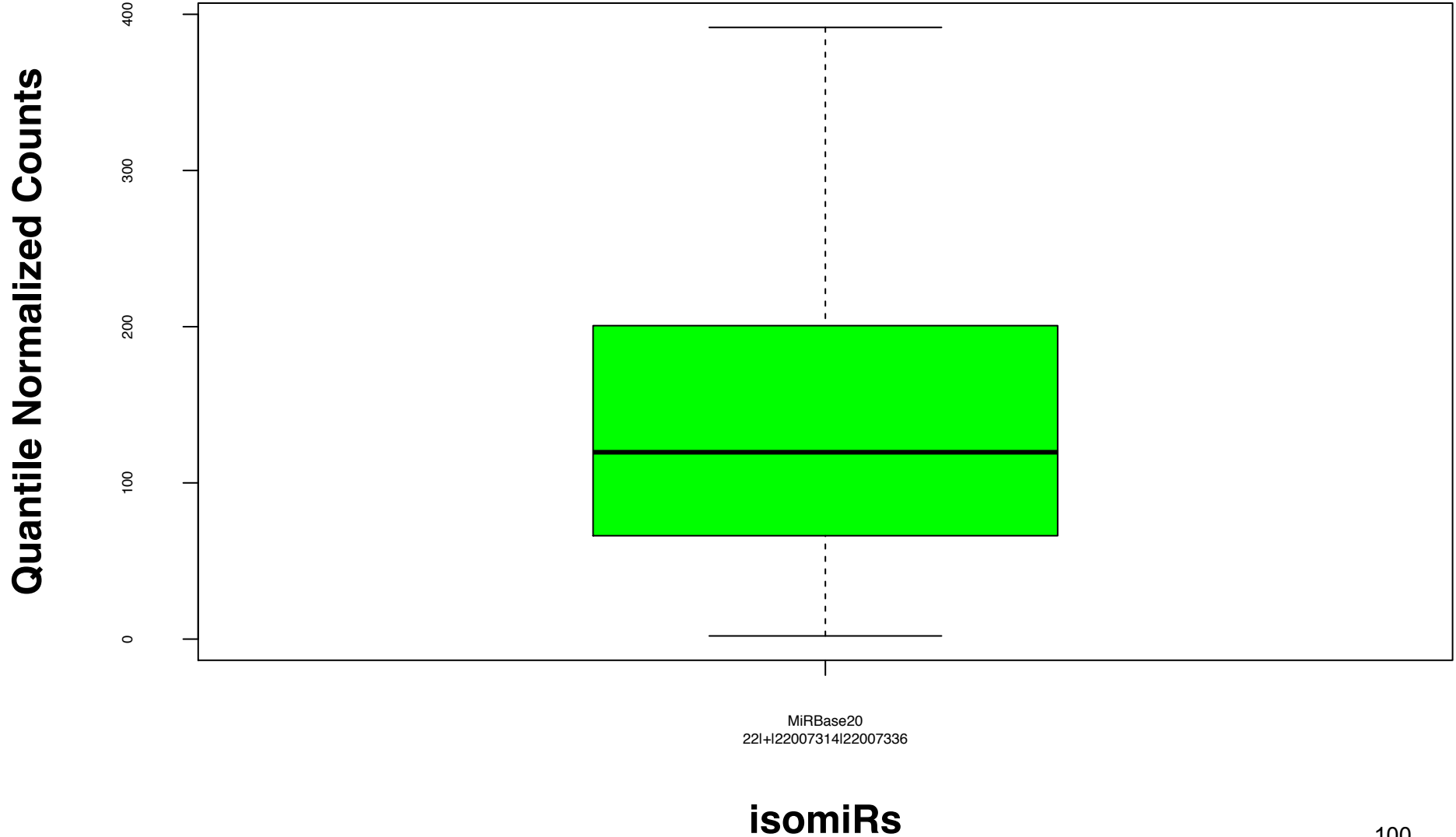
# MIMAT0005949=hsa-miR-664a-3p=MI0006442



# MIMAT0027587=hsa-miR-6842-3p=MI0022688

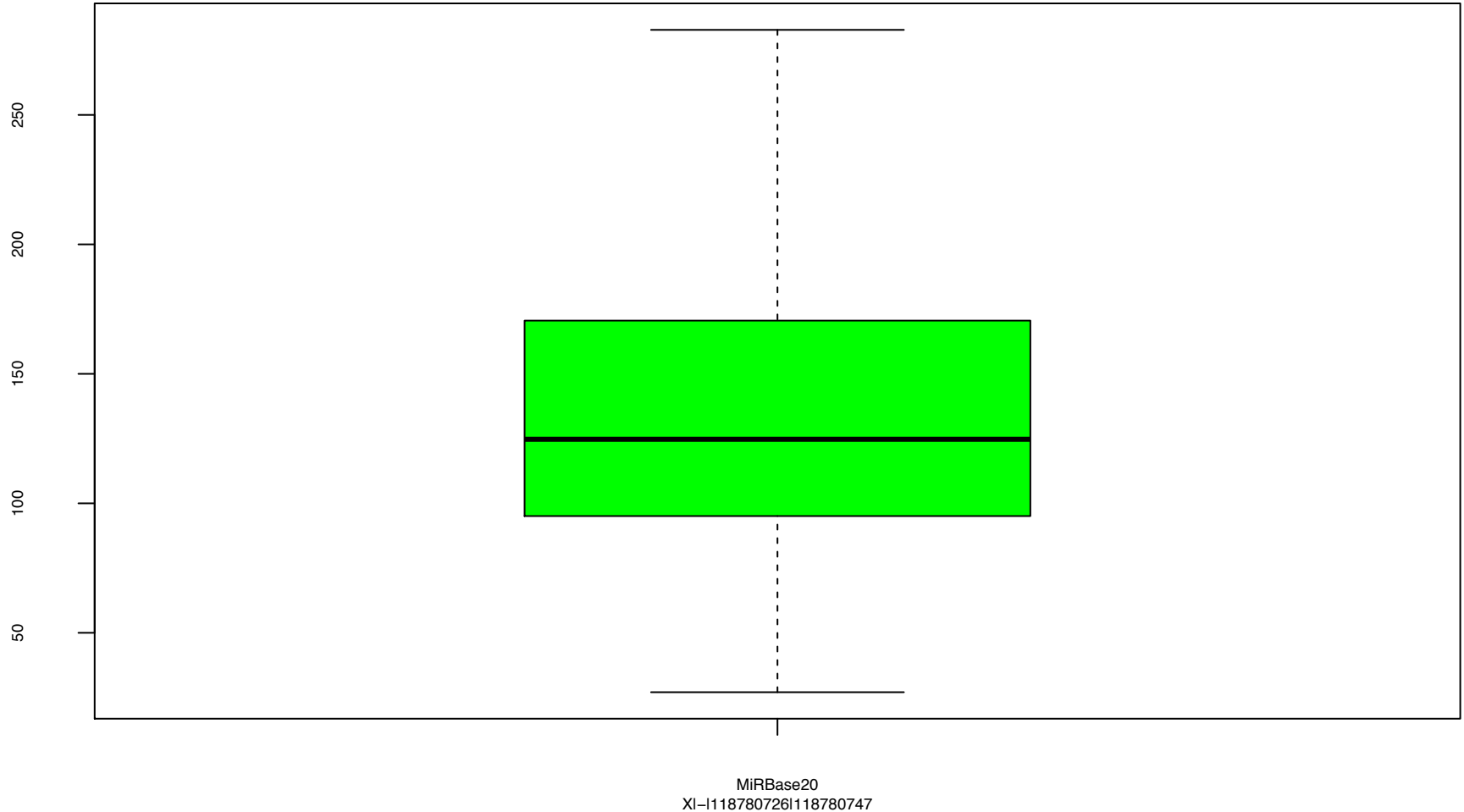


# MIMAT0004958=hsa-miR-301b=MI0005568



# MIMAT0003888=hsa-miR-766-3p=MI0003836

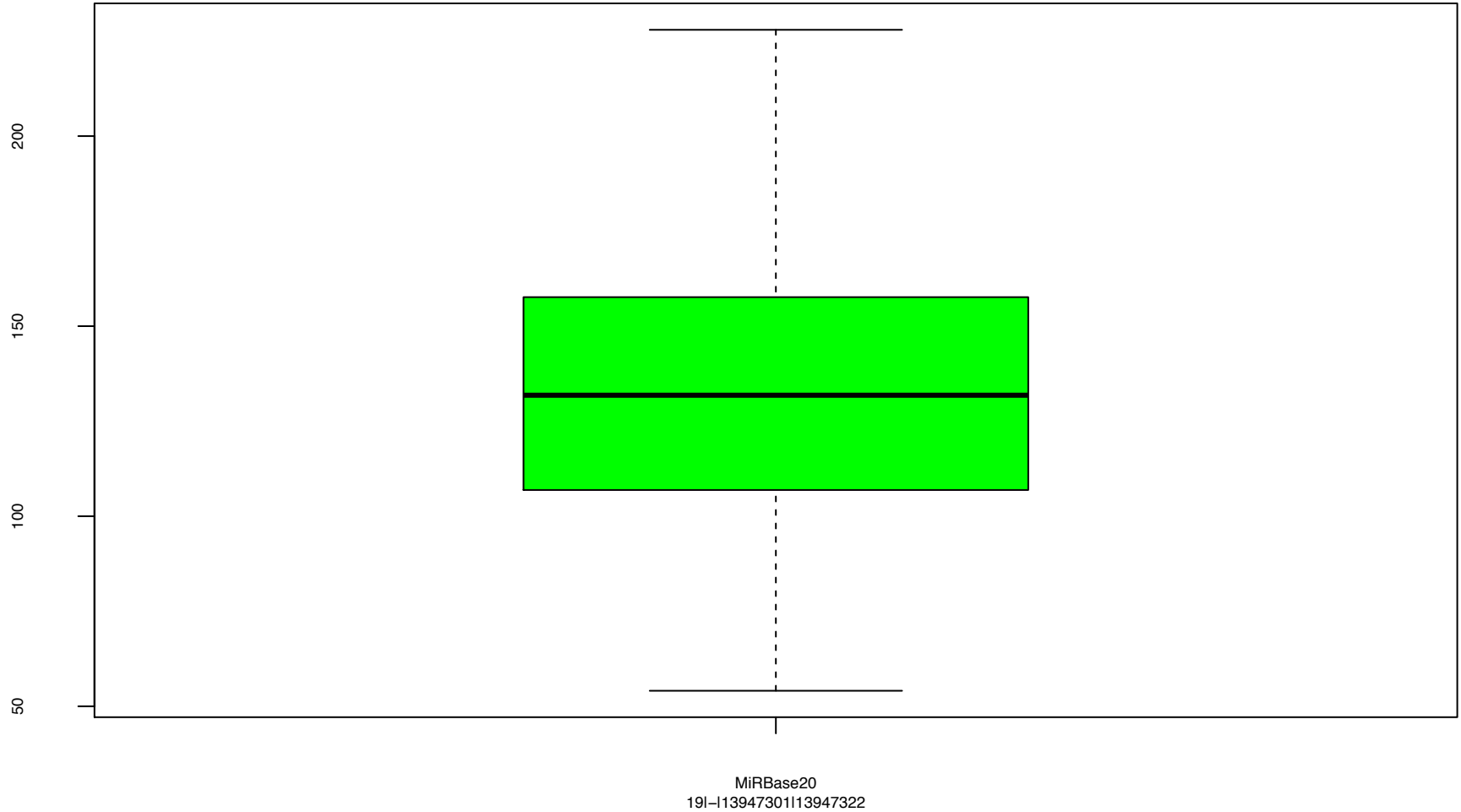
Quantile Normalized Counts



isomiRs

# MIMAT0004501=hsa-miR-27a-5p=MI0000085

Quantile Normalized Counts

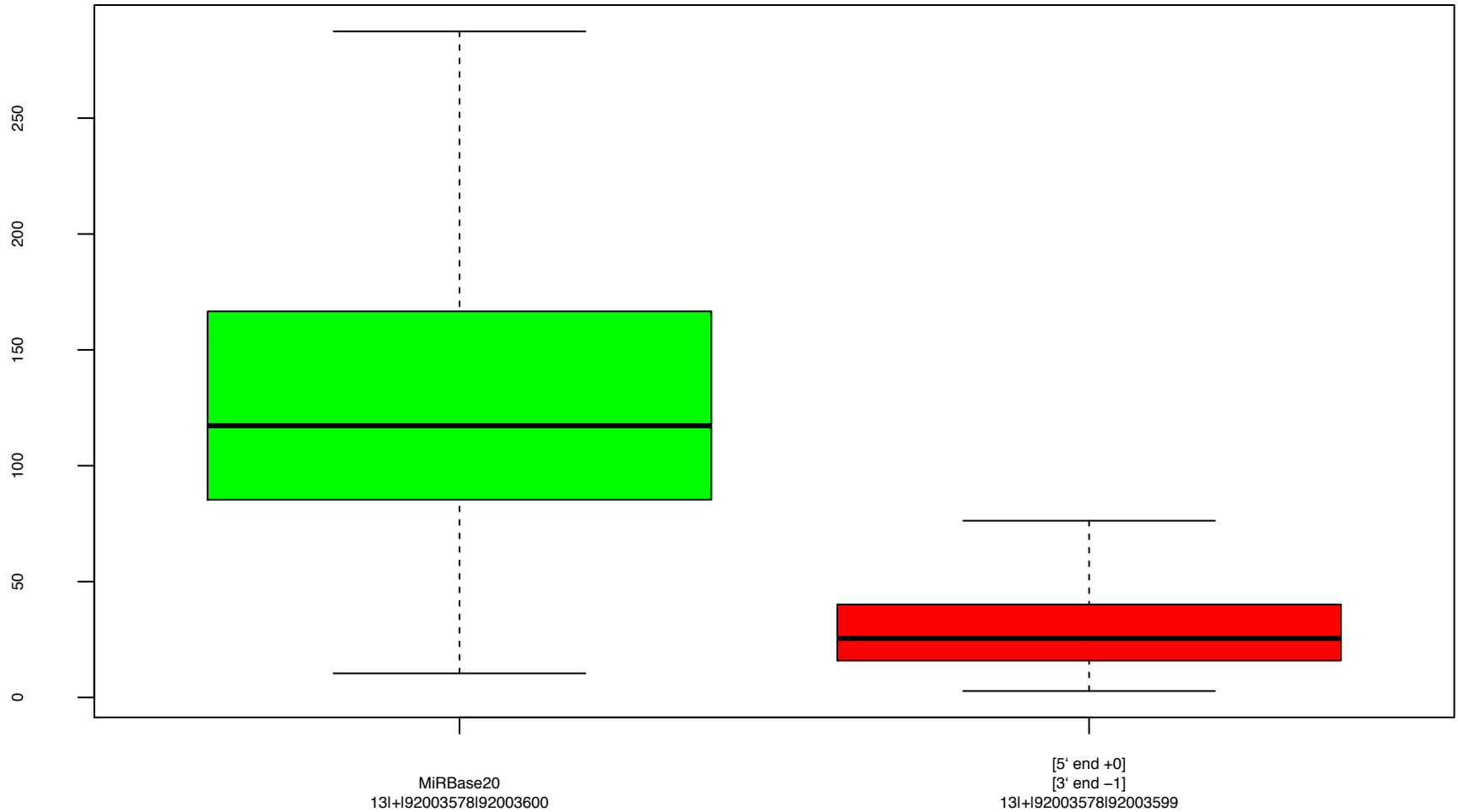


MiRBase20  
19l-113947301|113947322

isomiRs

# MIMAT0004507=hsa-miR-92a-1-5p=MI0000093

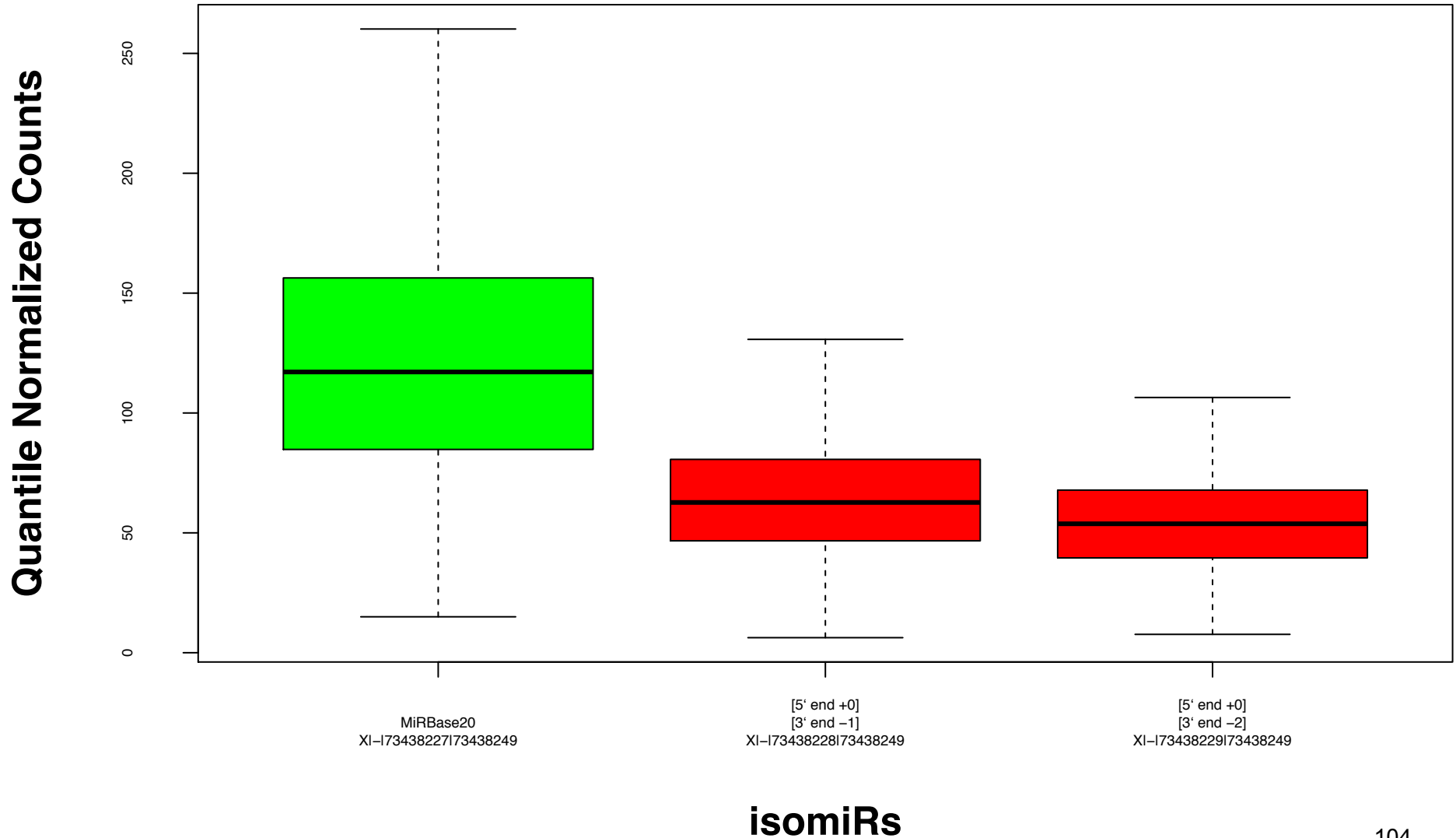
Quantile Normalized Counts



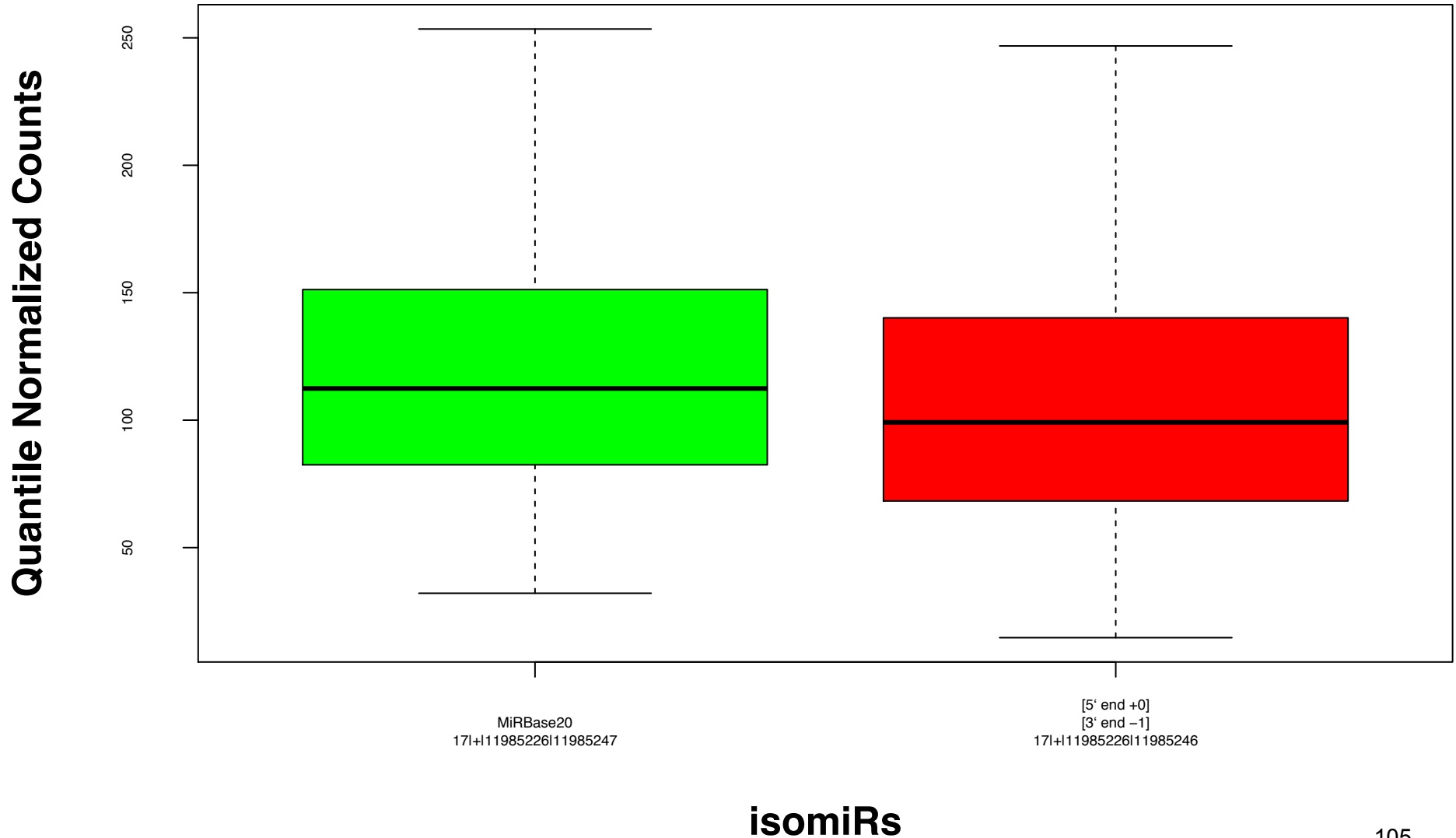
isomiRs



# MIMAT0003339=hsa-miR-421=MI0003685

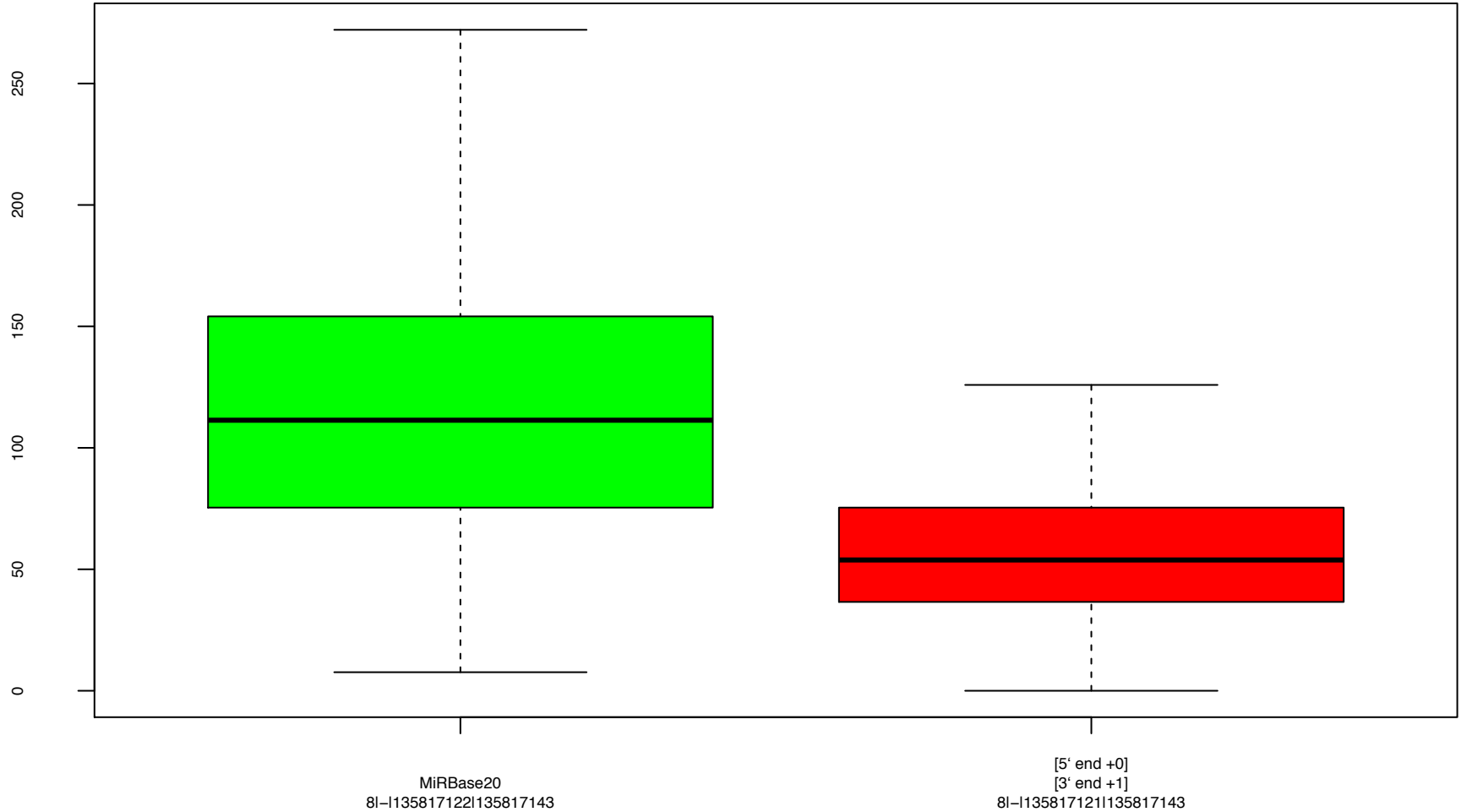


# MIMAT0004945=hsa-miR-744-5p=MI0005559



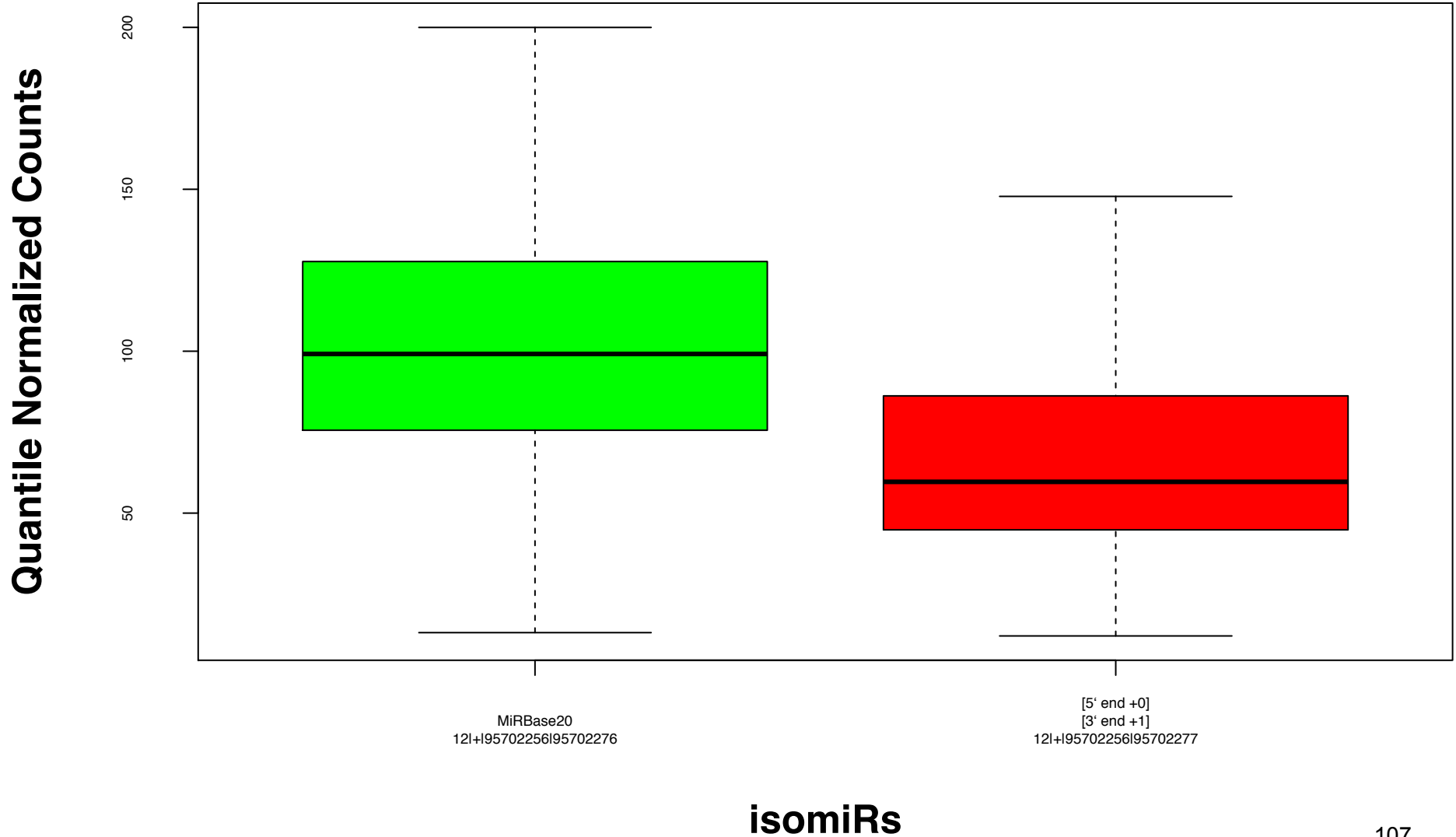
# MIMAT0004551=hsa-miR-30d-3p=MI0000255

Quantile Normalized Counts



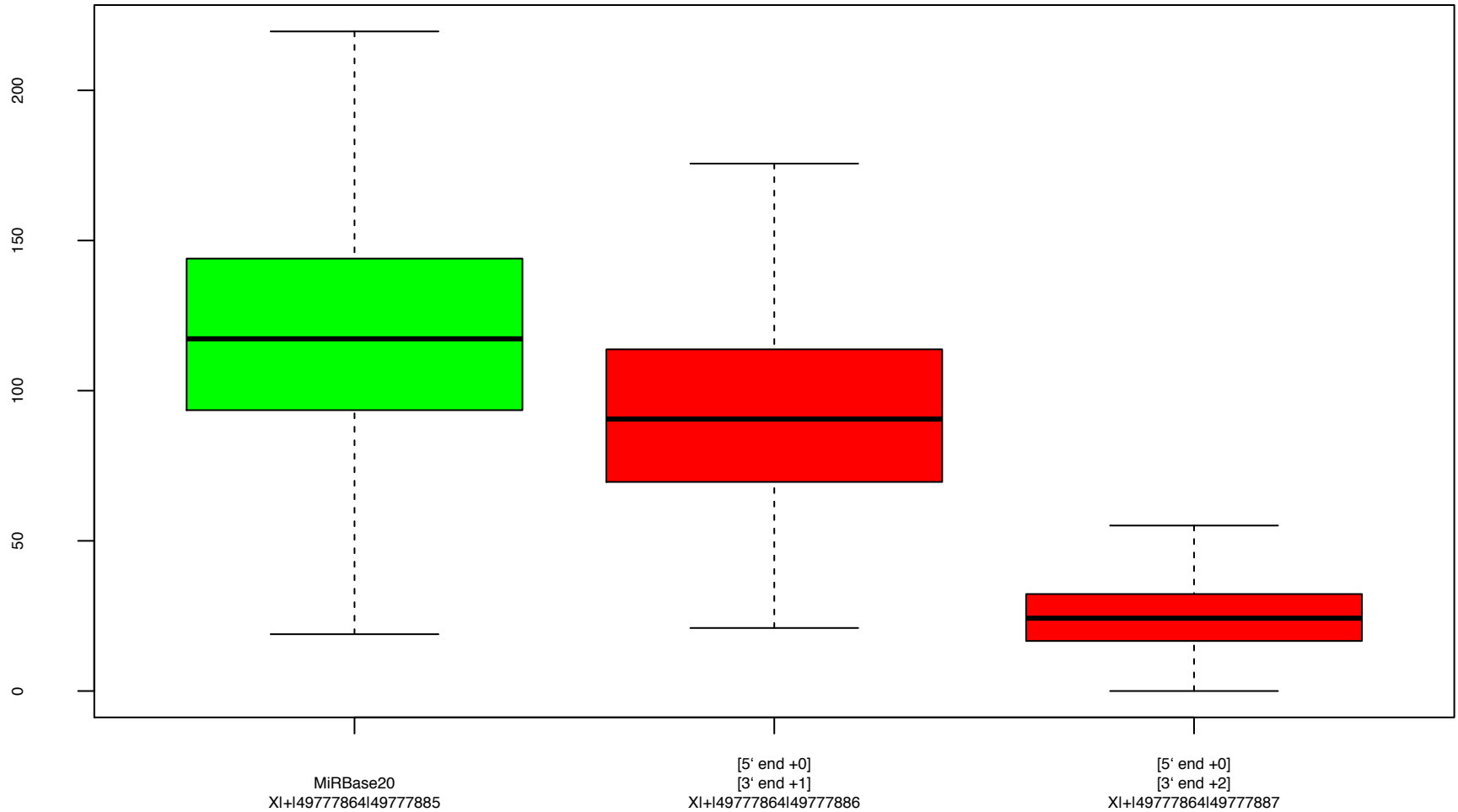
isomiRs

# MIMAT0000760=hsa-miR-331-3p=MI0000812



# MIMAT0003338=hsa-miR-660-5p=MI0003684

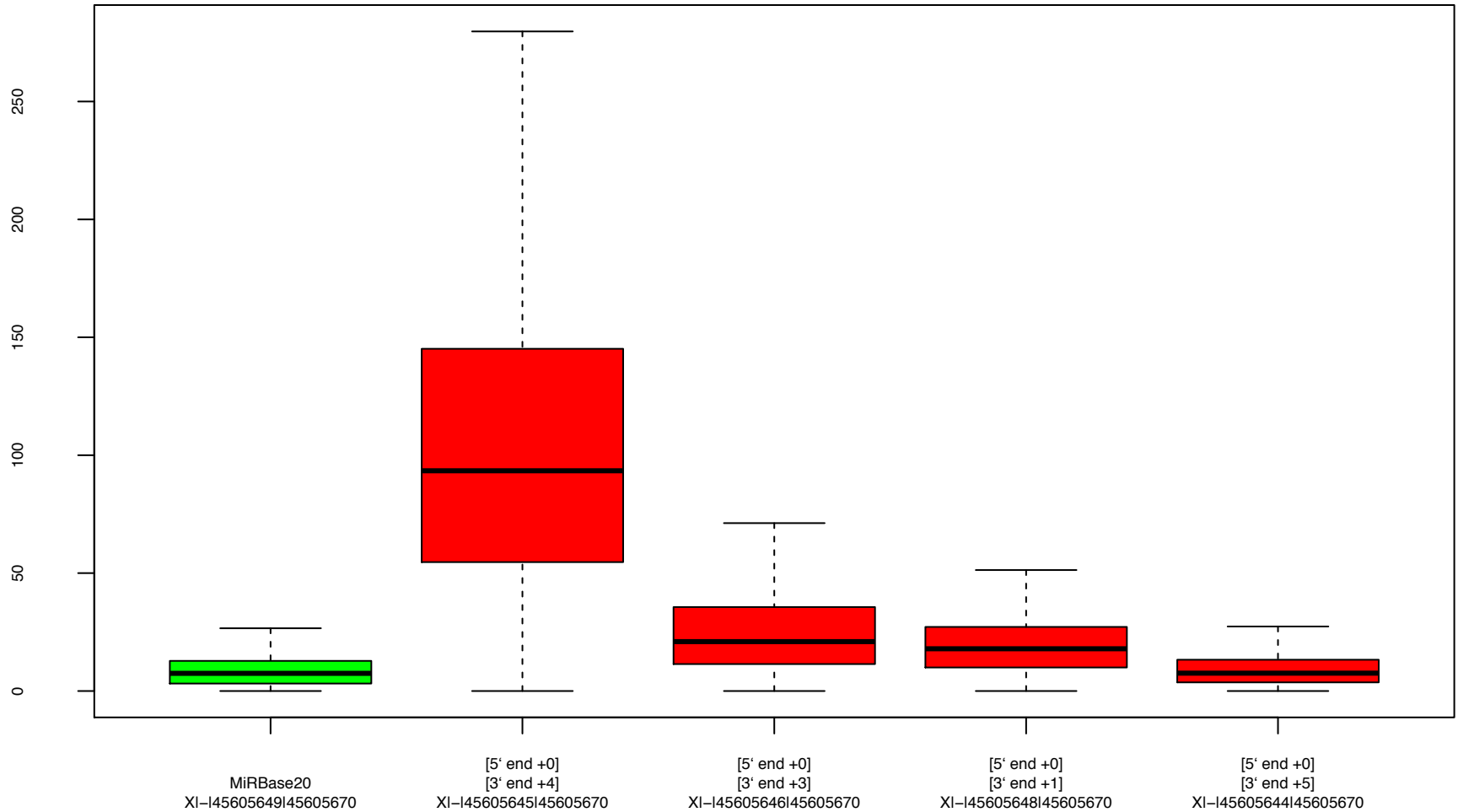
Quantile Normalized Counts



isomiRs

# MIMAT0004568=hsa-miR-221-5p=MI0000298

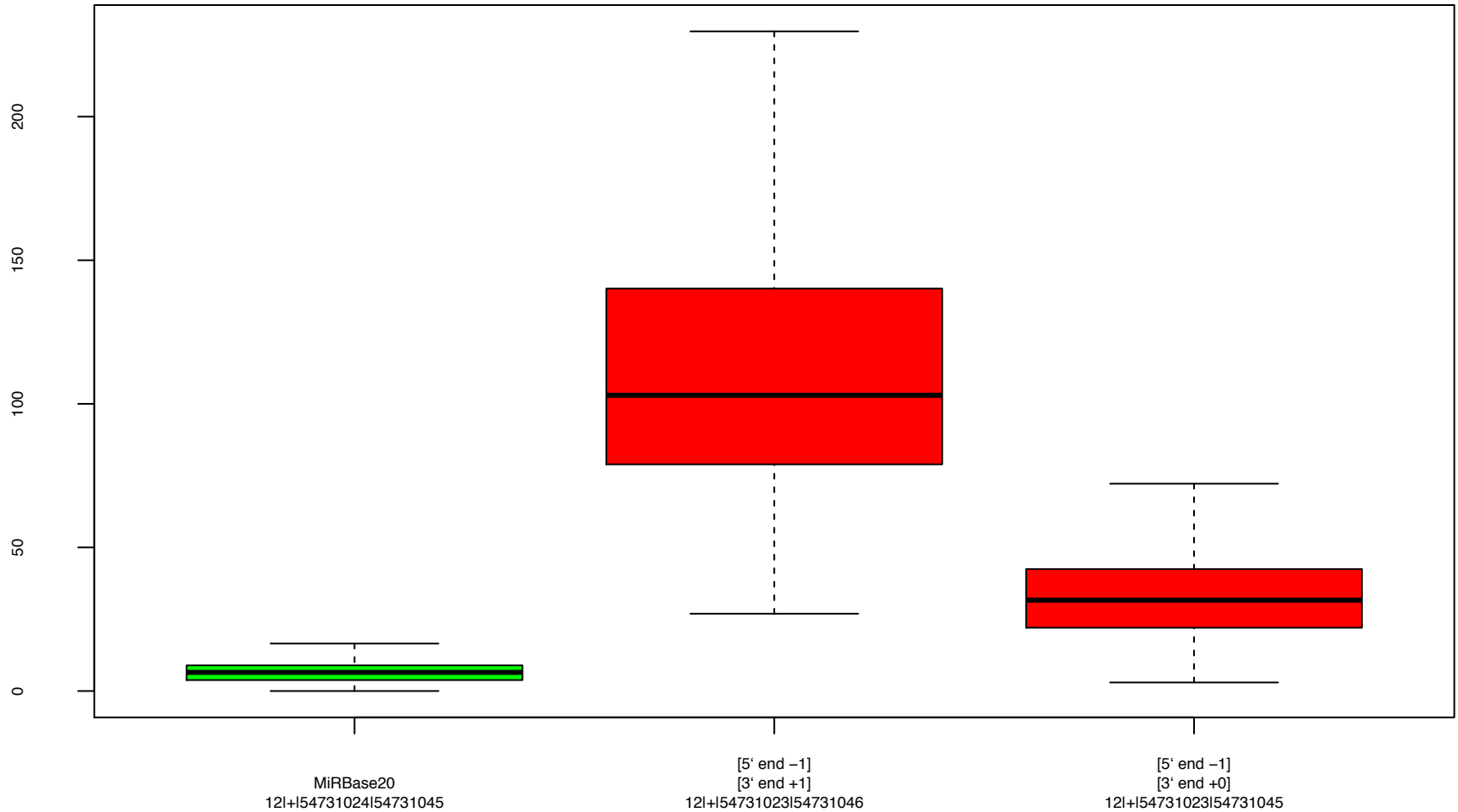
Quantile Normalized Counts



isomiRs

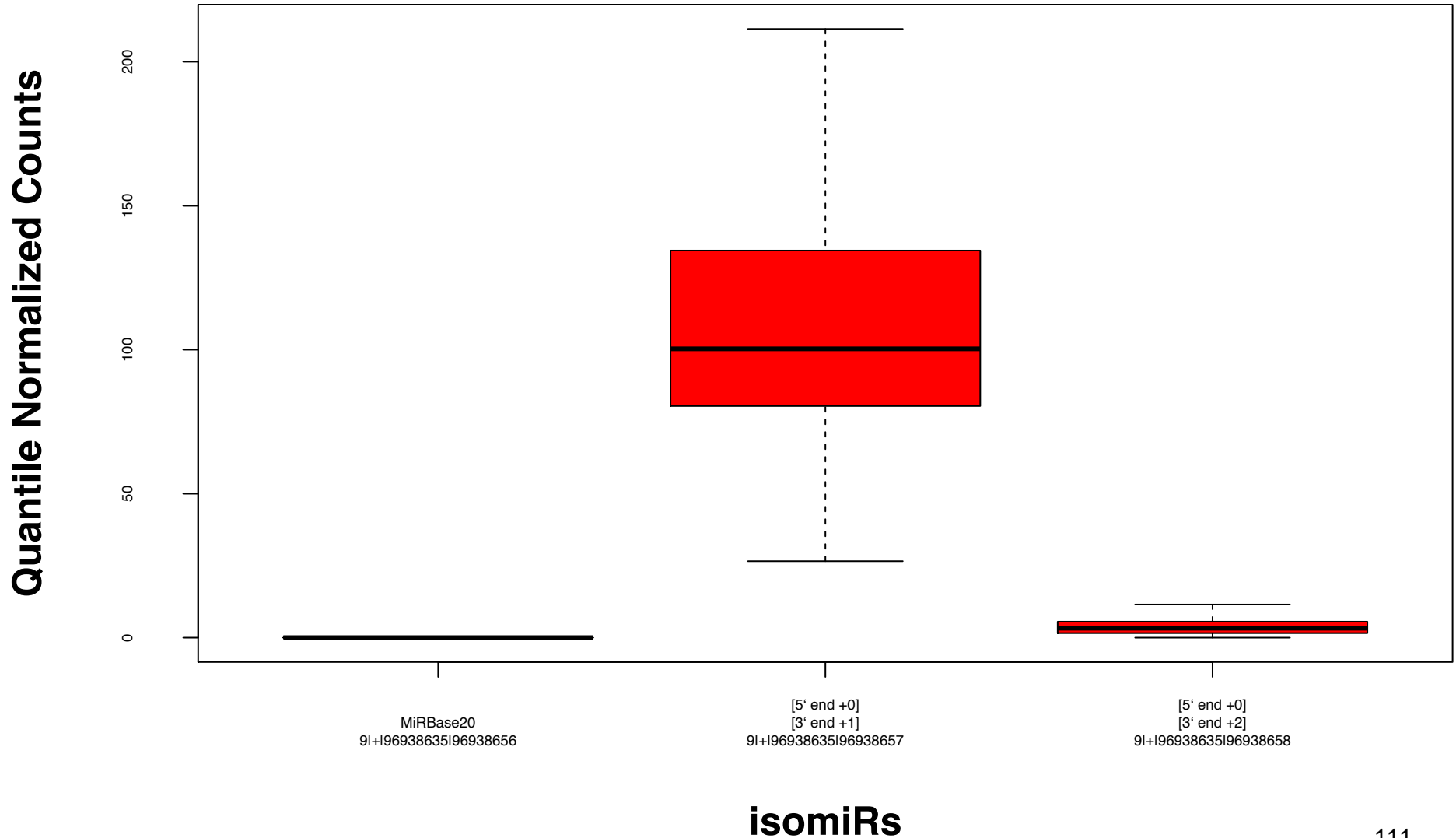
# MIMAT0004699=hsa-miR-148b-5p=MI0000811

Quantile Normalized Counts



isomiRs

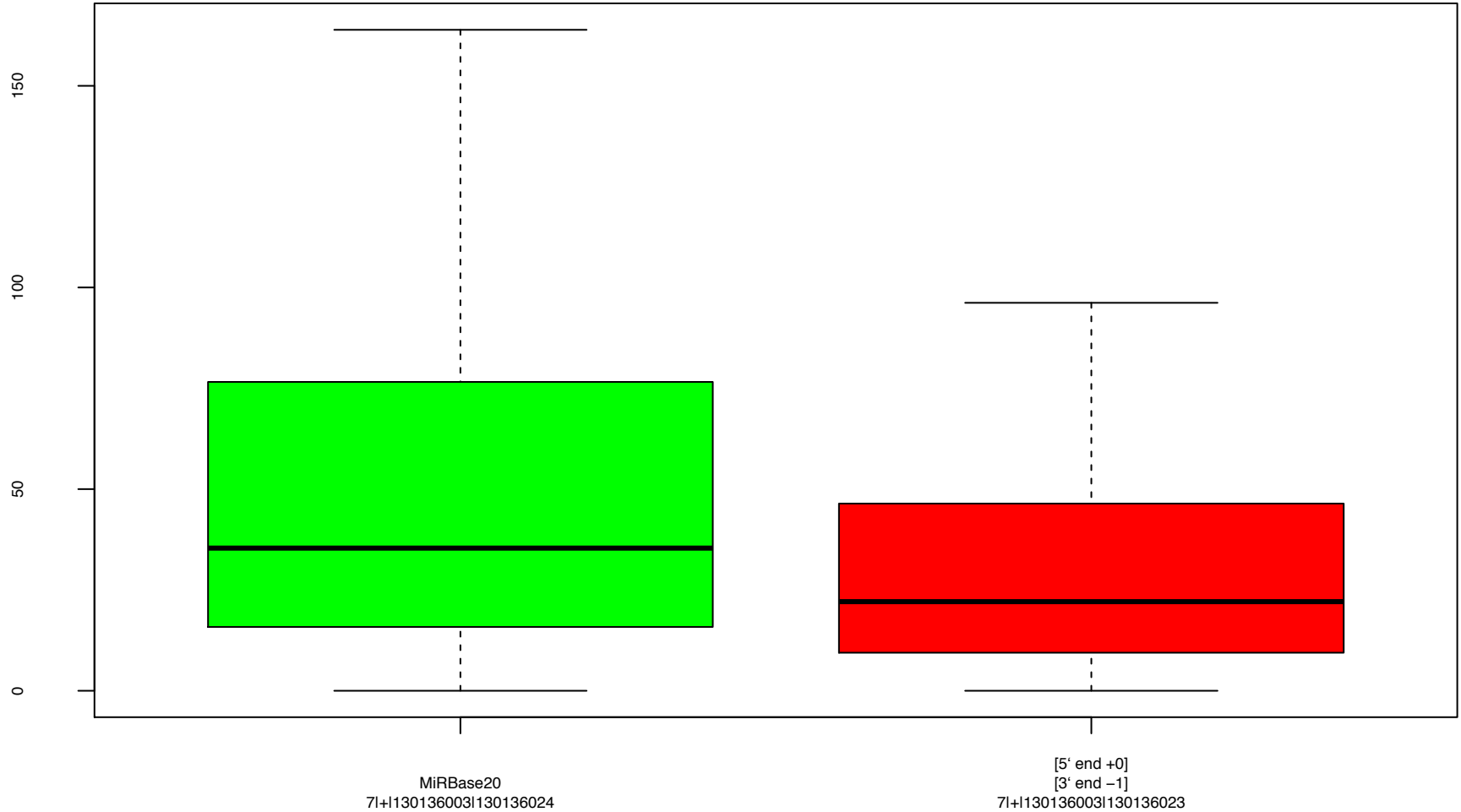
# MIMAT0000067=hsa-let-7f-5p=MI0000067





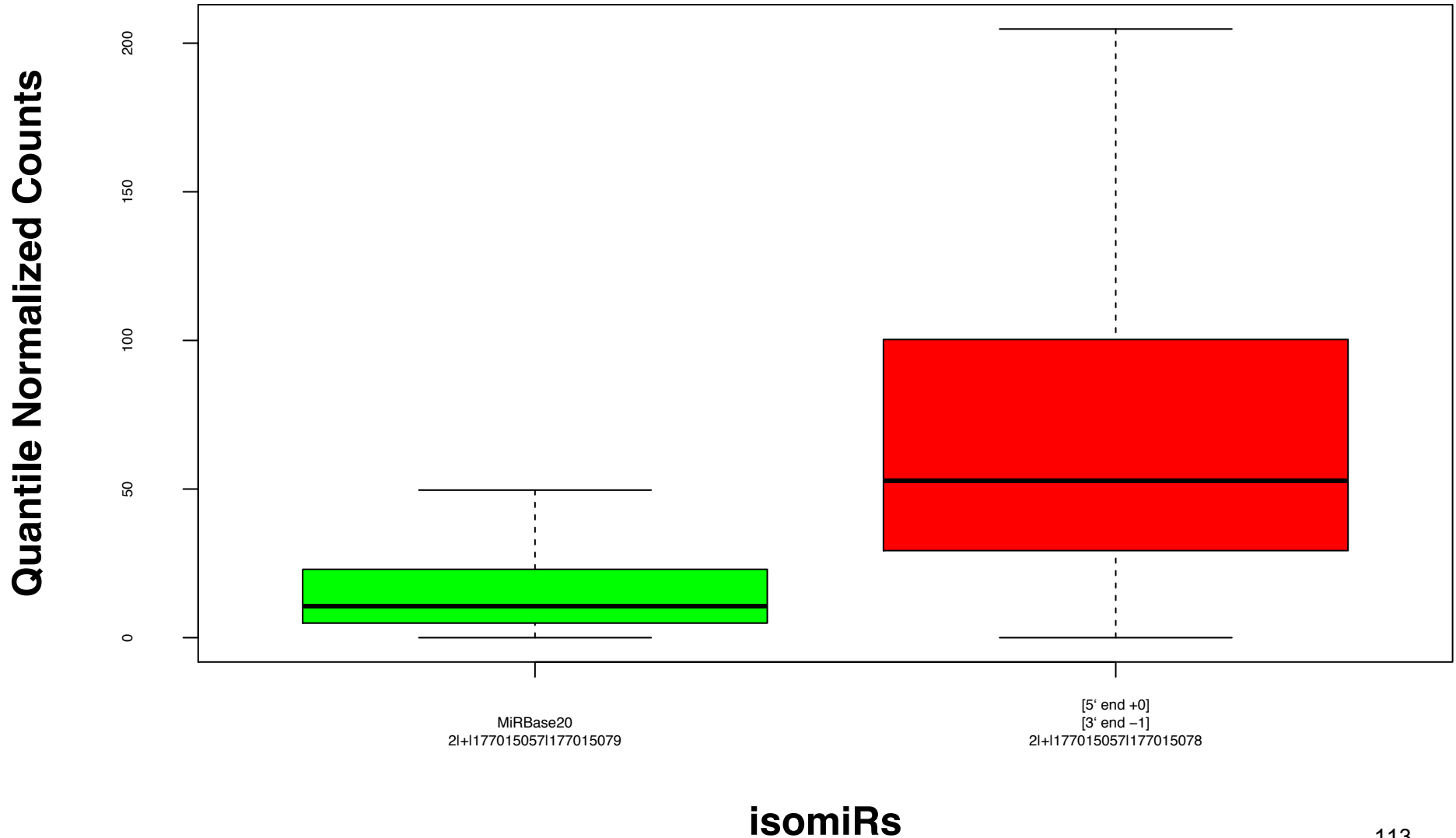
# MIMAT0004703=hsa-miR-335-3p=MI0000816

Quantile Normalized Counts

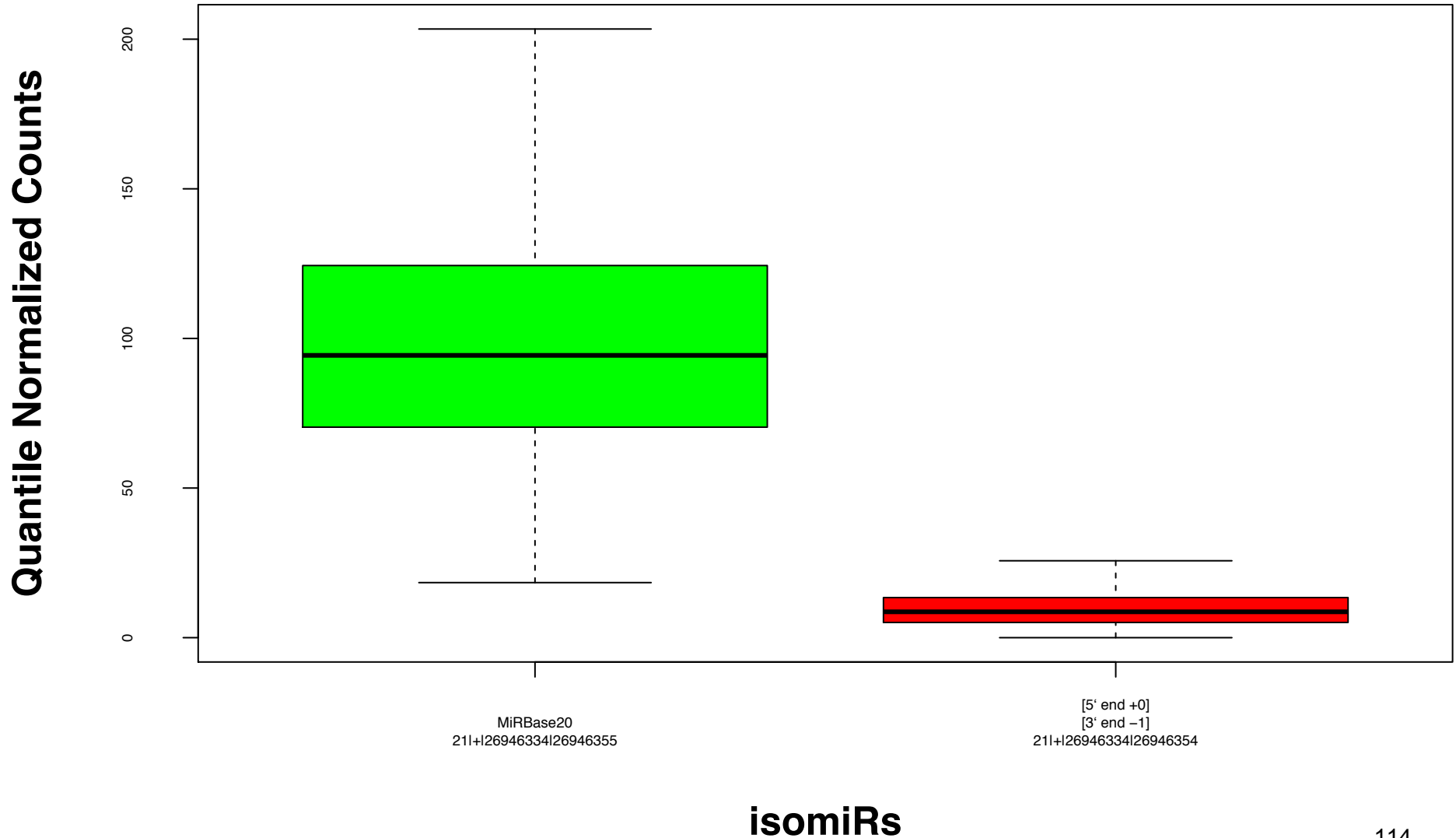


isomiRs

# MIMAT0000254=hsa-miR-10b-5p=MI0000267

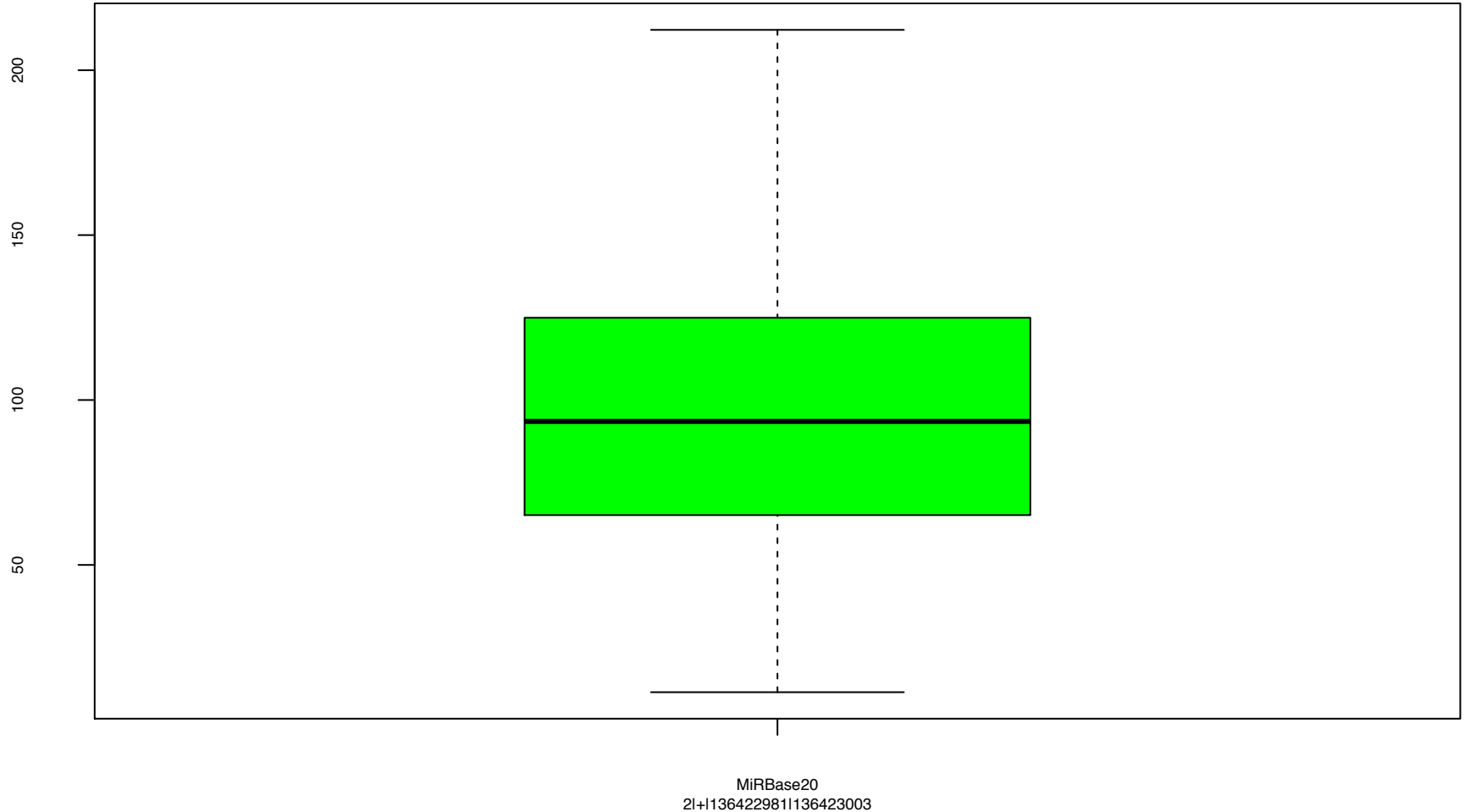


# MIMAT0004658=hsa-miR-155-3p=MI0000681



# MIMAT0026477=hsa-miR-128-1-5p=MI0000447

Quantile Normalized Counts

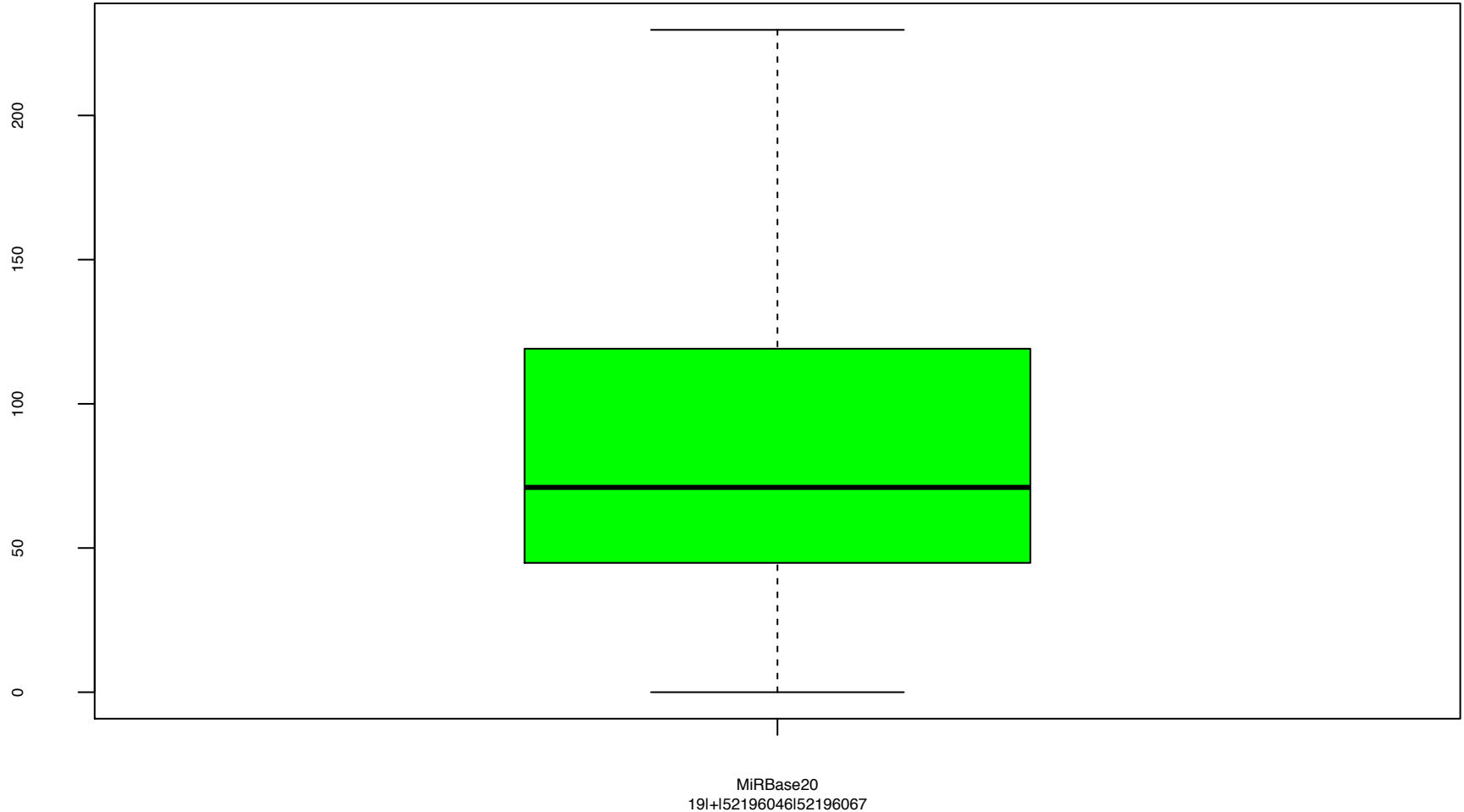


MiRBase20  
2l+11364229811136423003

isomiRs

# MIMAT0000066=hsa-let-7e-5p=MI0000066

Quantile Normalized Counts

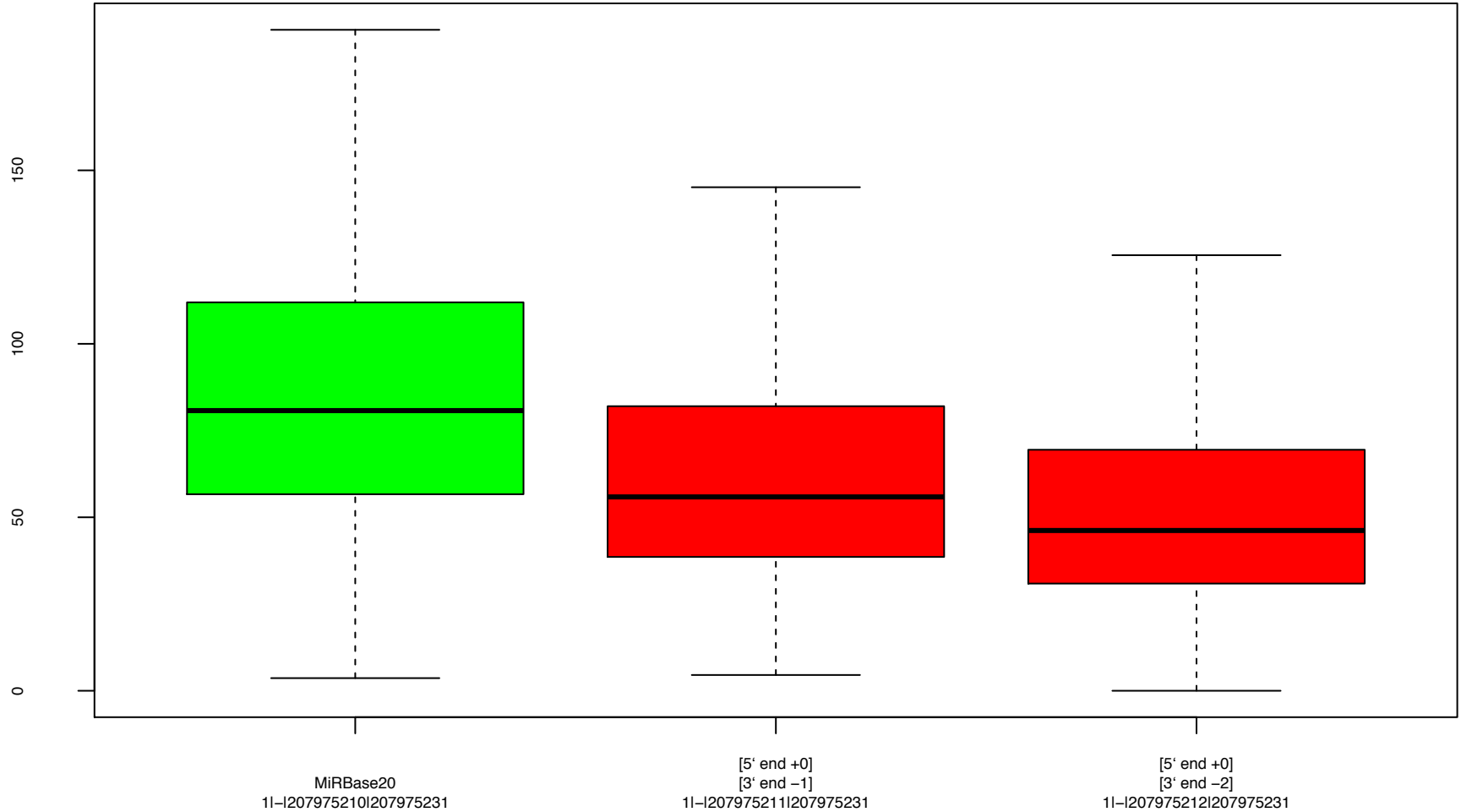


MiRBase20  
19l+152196046|52196067

isomiRs

# MIMAT0000681=hsa-miR-29c-3p=MI0000735

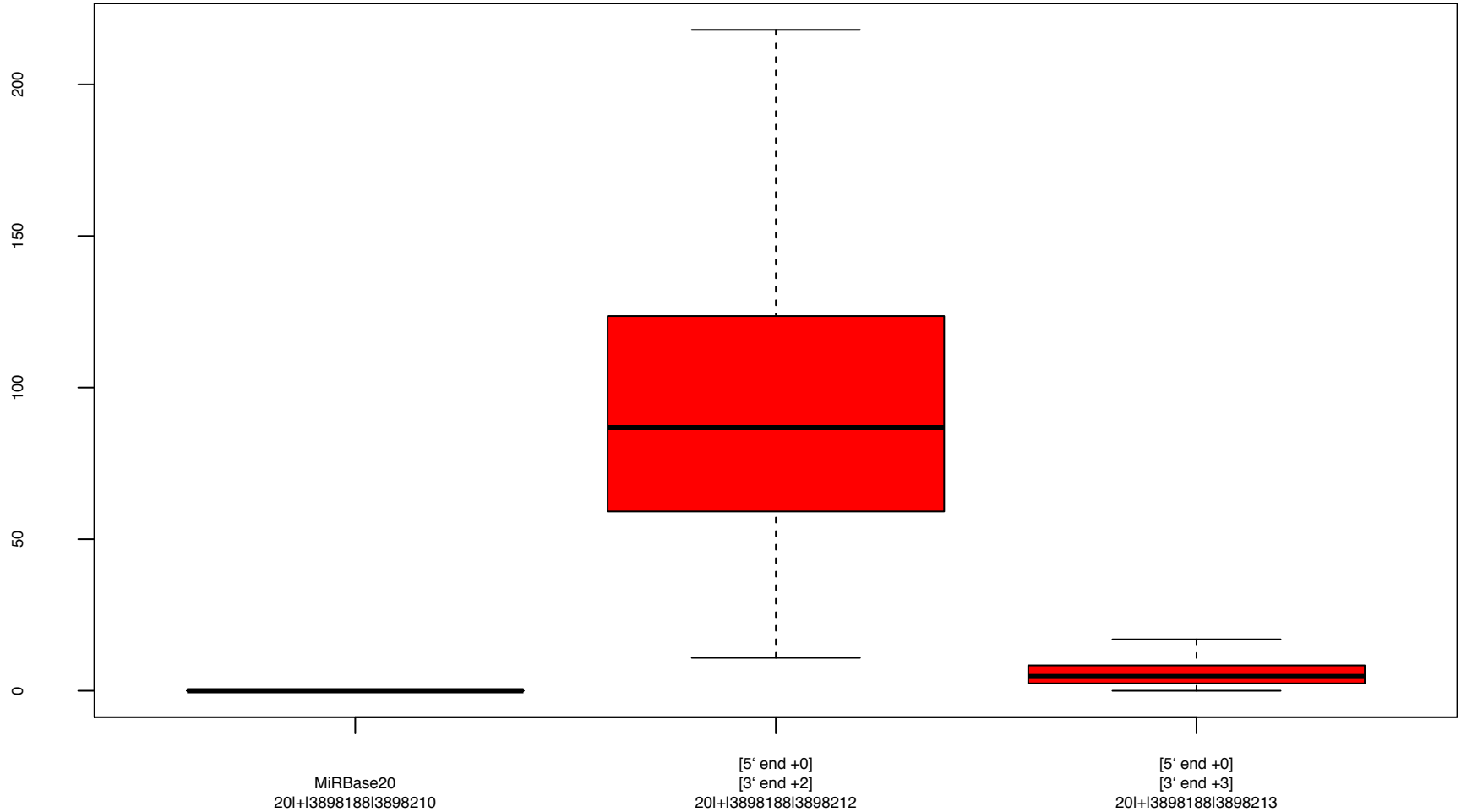
Quantile Normalized Counts



isomiRs

# MIMAT0000101=hsa-miR-103a-3p=MI0000108

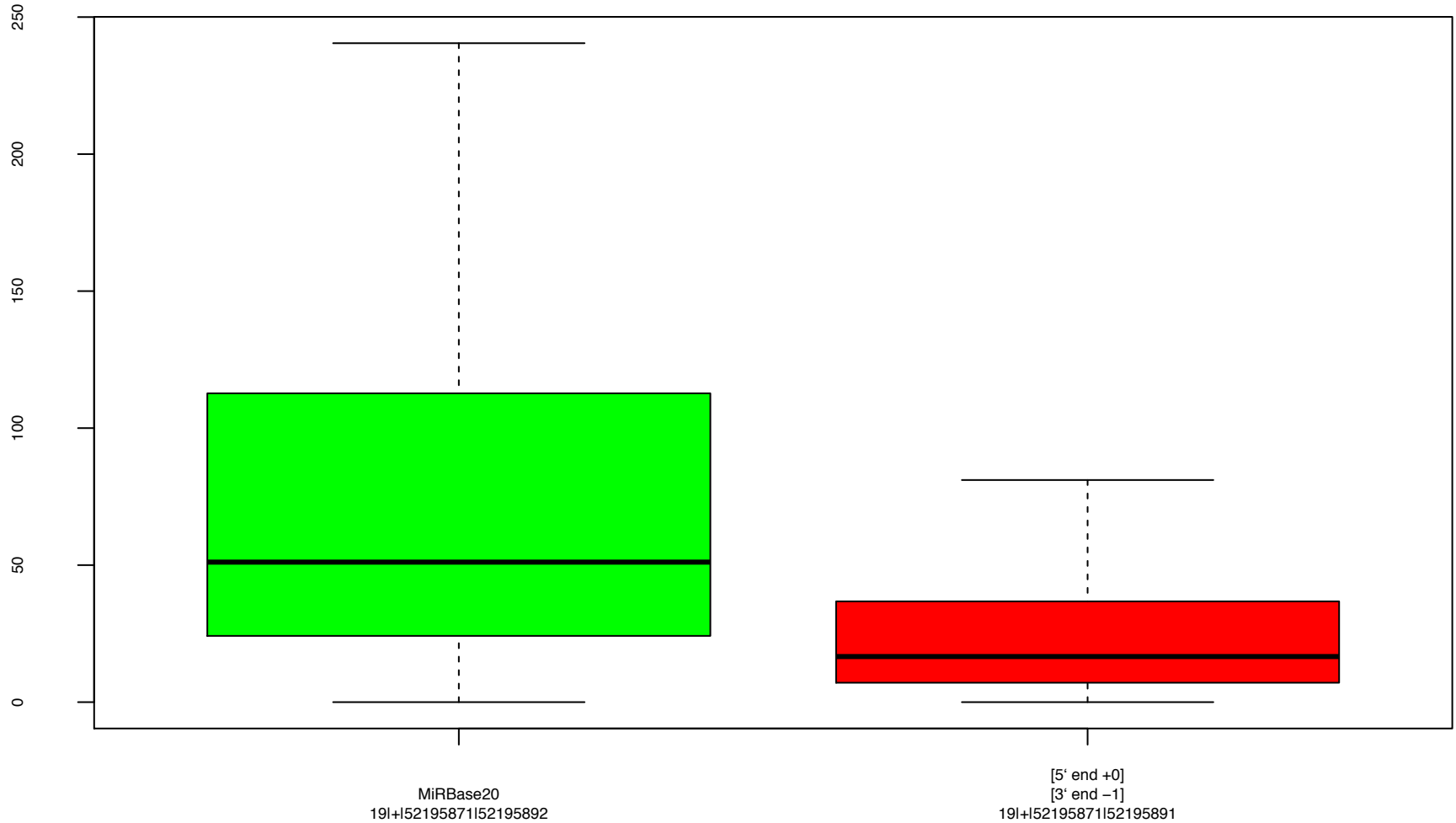
Quantile Normalized Counts



isomiRs

# MIMAT0000689=hsa-miR-99b-5p=MI0000746

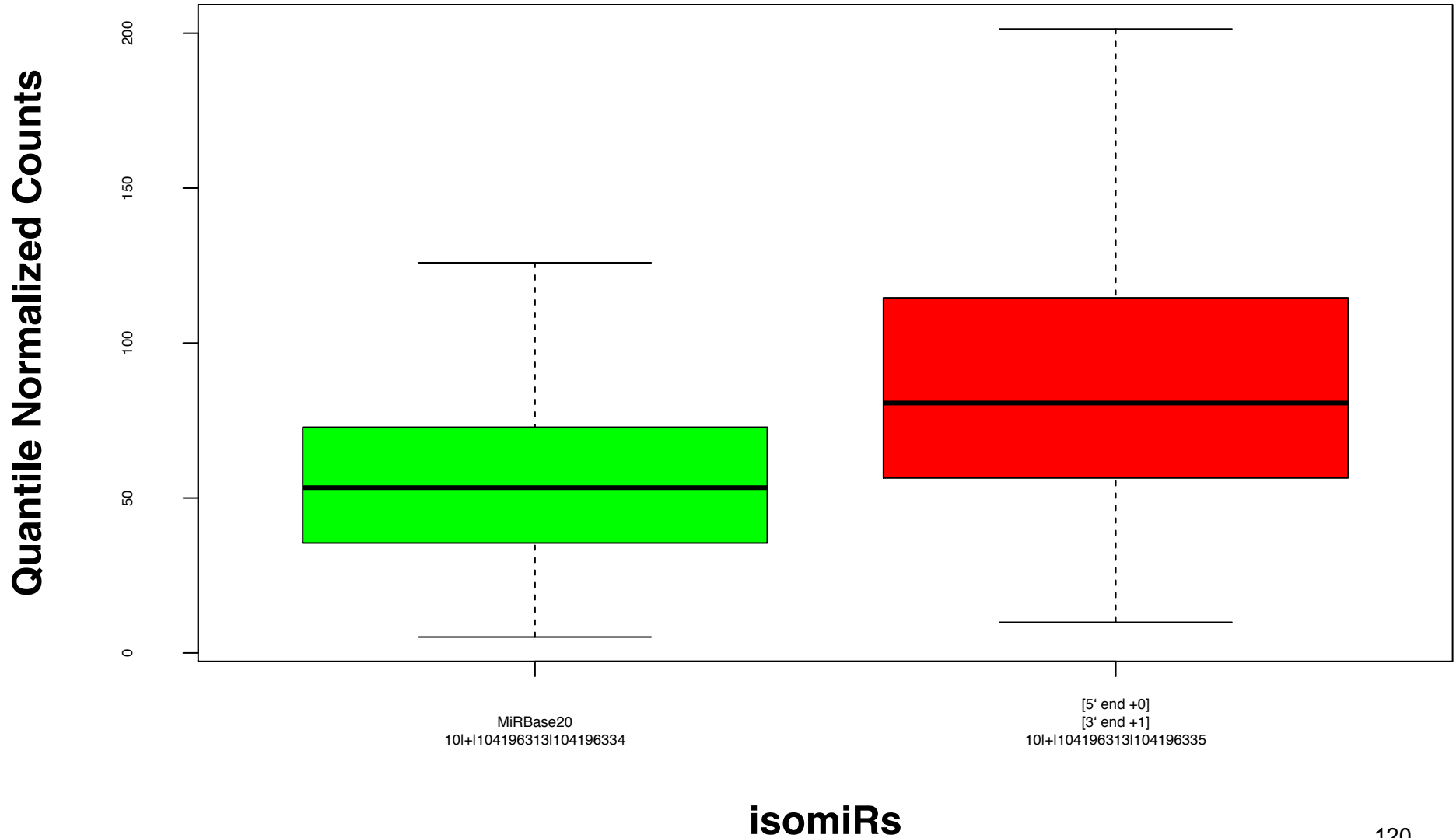
Quantile Normalized Counts



isomiRs

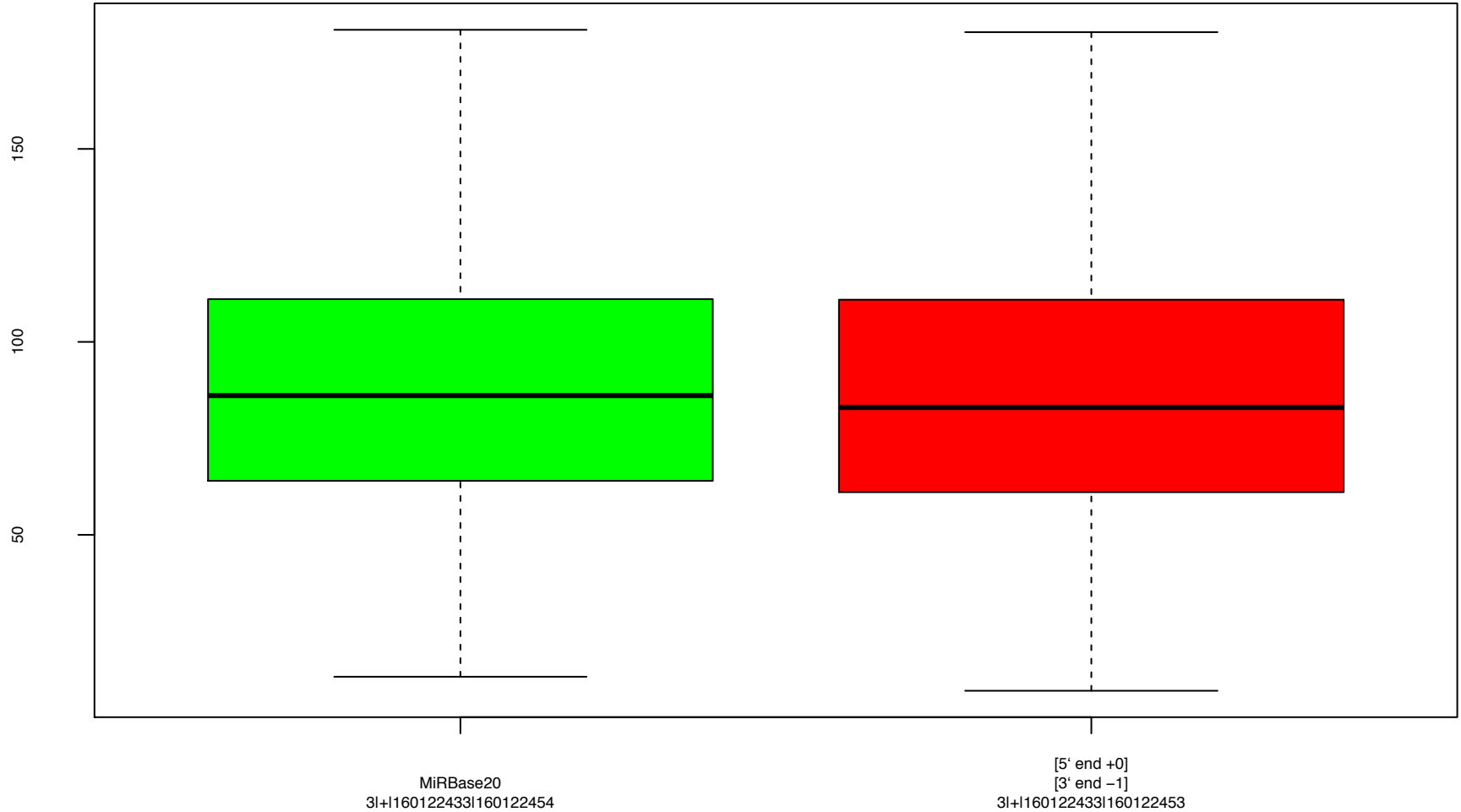


# MIMAT0004766=hsa-miR-146b-3p=MI0003129



# MIMAT0004586=hsa-miR-15b-3p=MI0000438

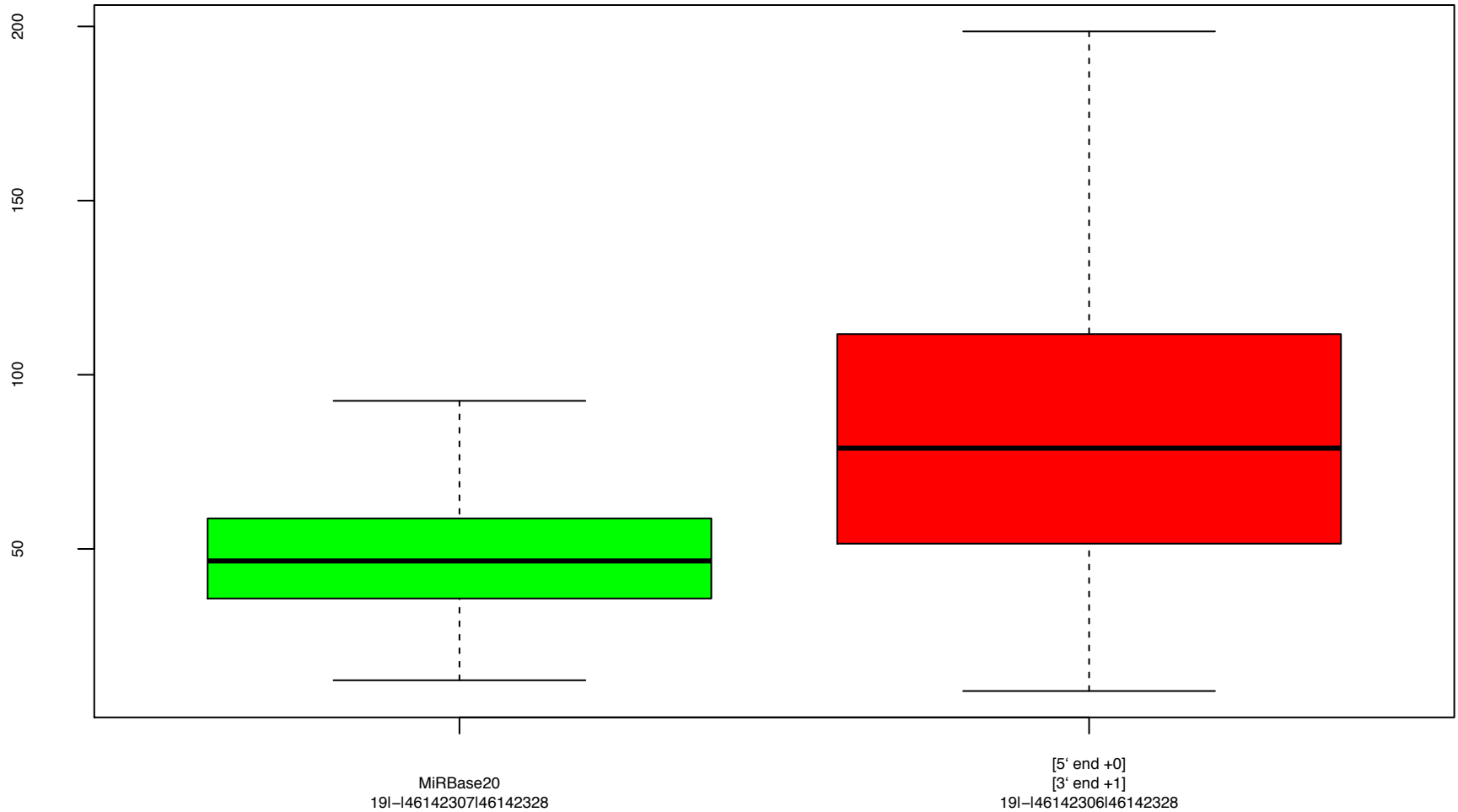
Quantile Normalized Counts



isomiRs

# MIMAT0004693=hsa-miR-330-5p=MI0000803

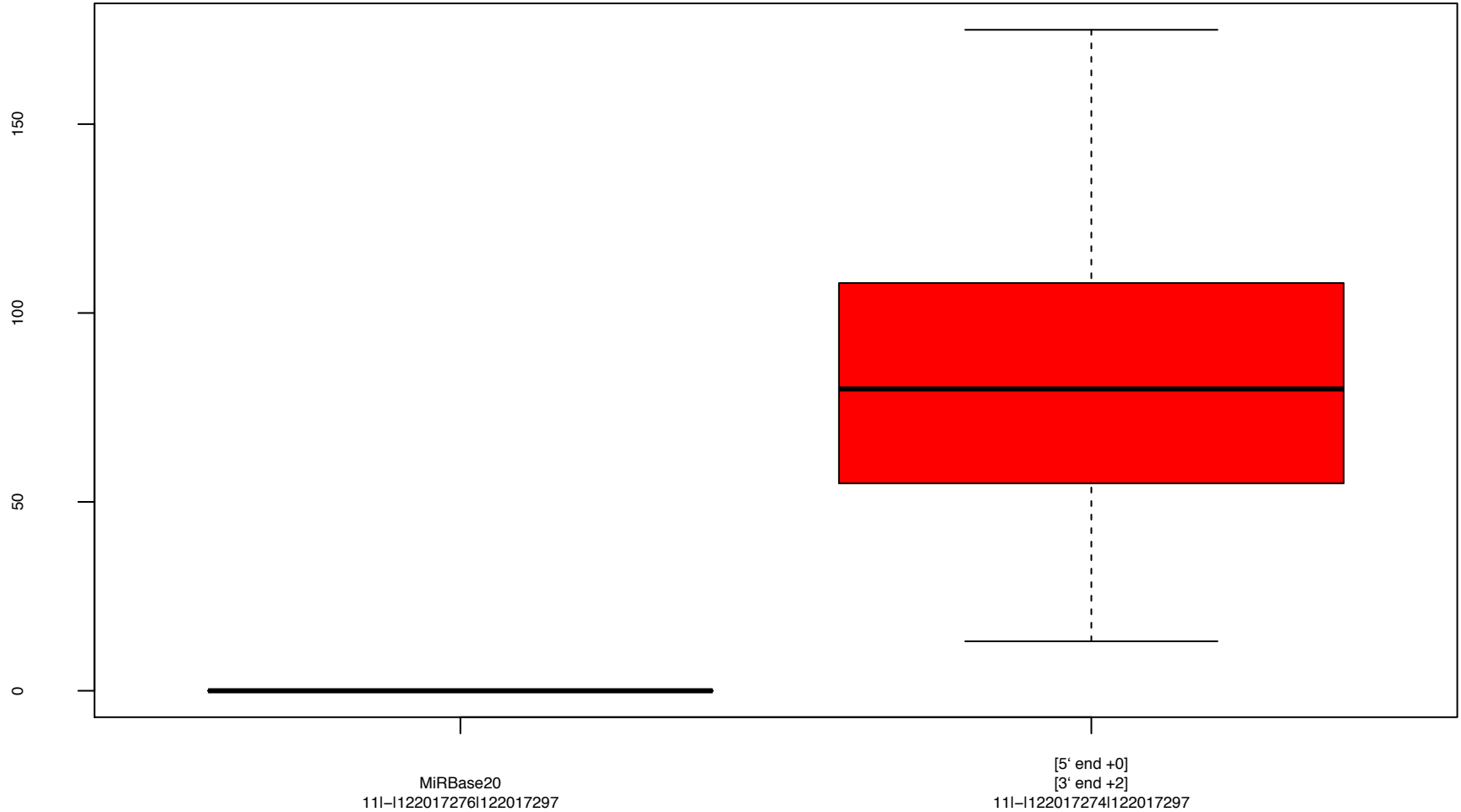
Quantile Normalized Counts



isomiRs

# MIMAT0000062=hsa-let-7a-5p=MI0000061

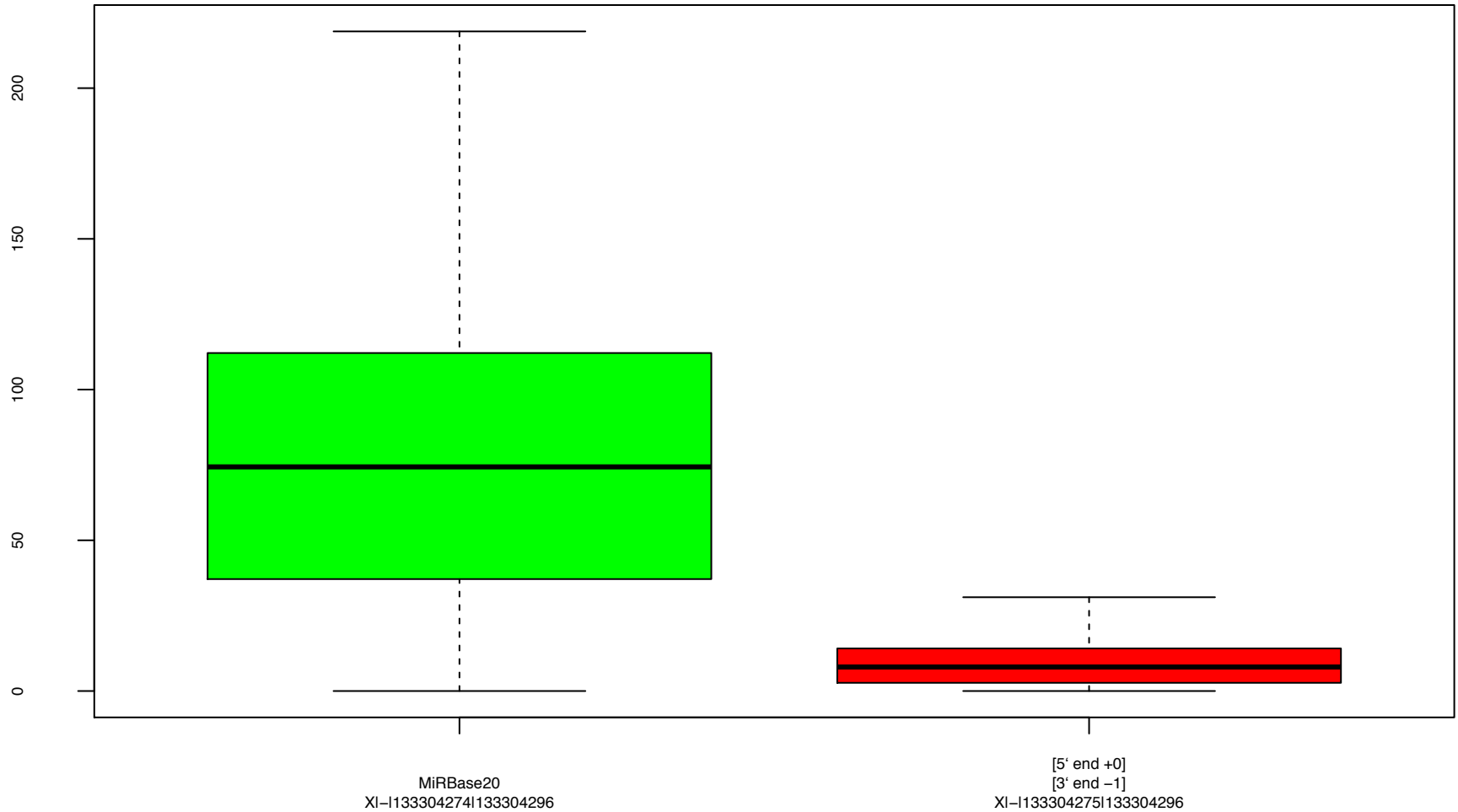
Quantile Normalized Counts



isomiRs

# MIMAT0000103=hsa-miR-106a-5p=MI0000113

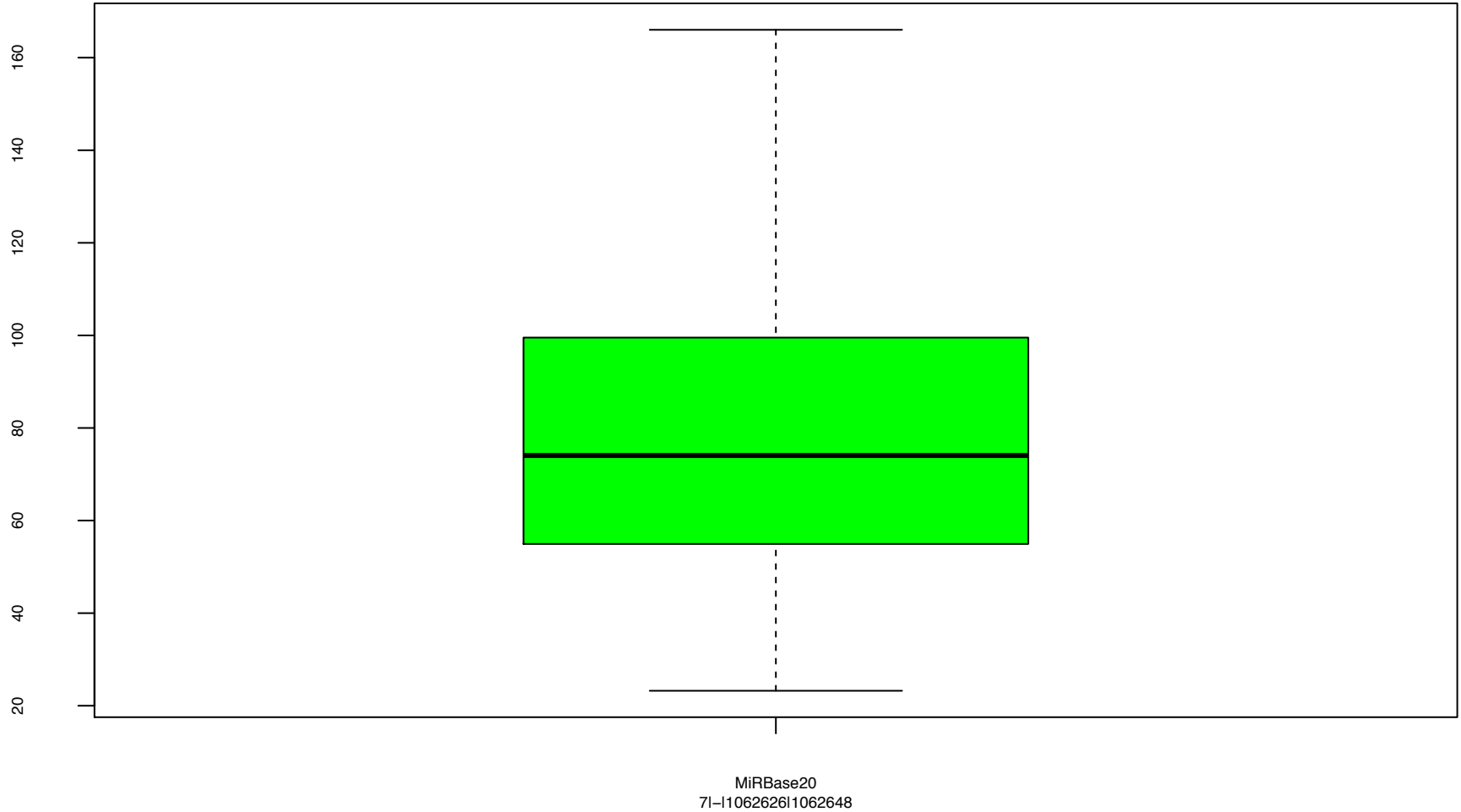
Quantile Normalized Counts



isomiRs

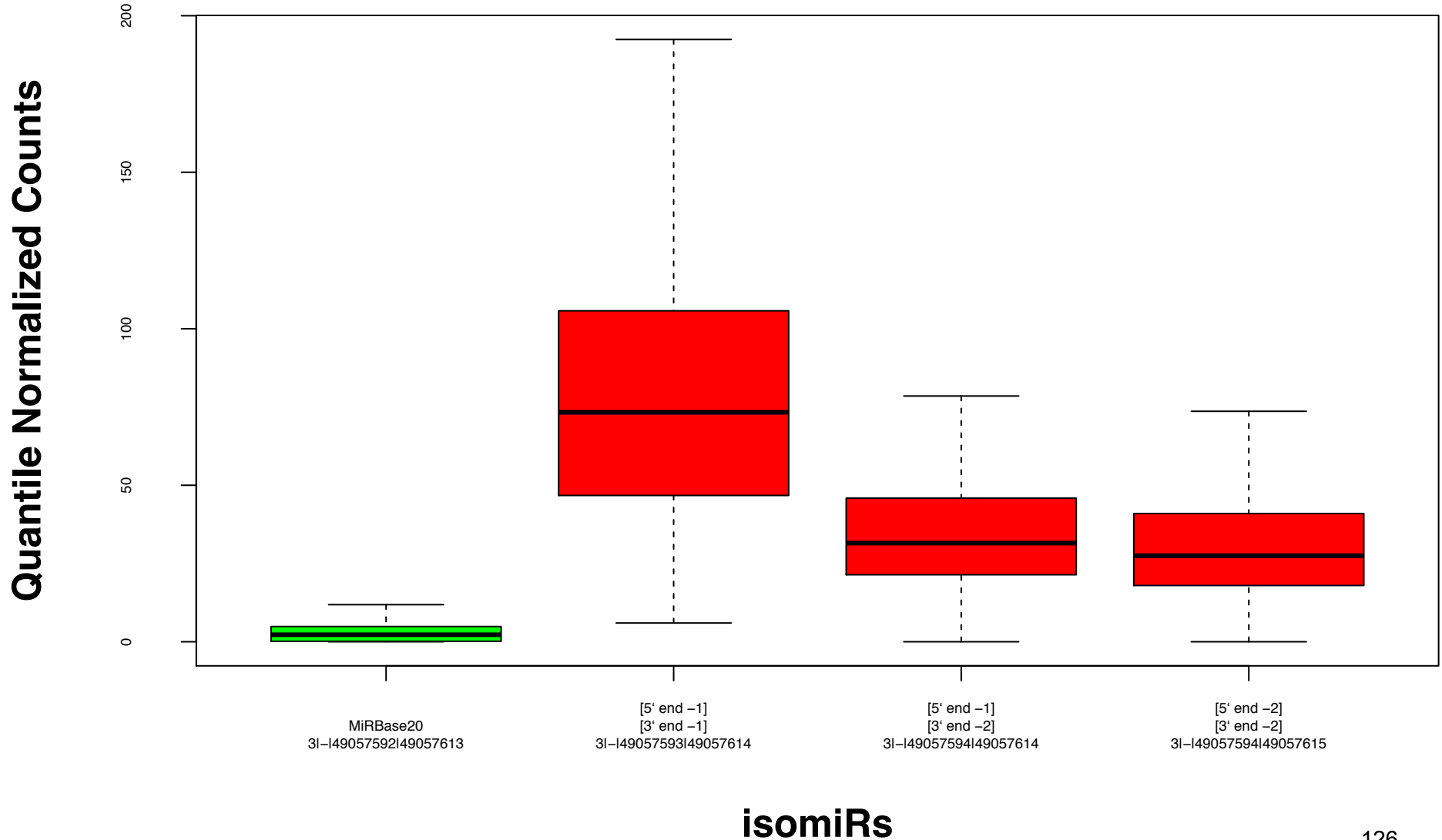
# MIMAT0000764=hsa-miR-339-5p=MI0000815

Quantile Normalized Counts



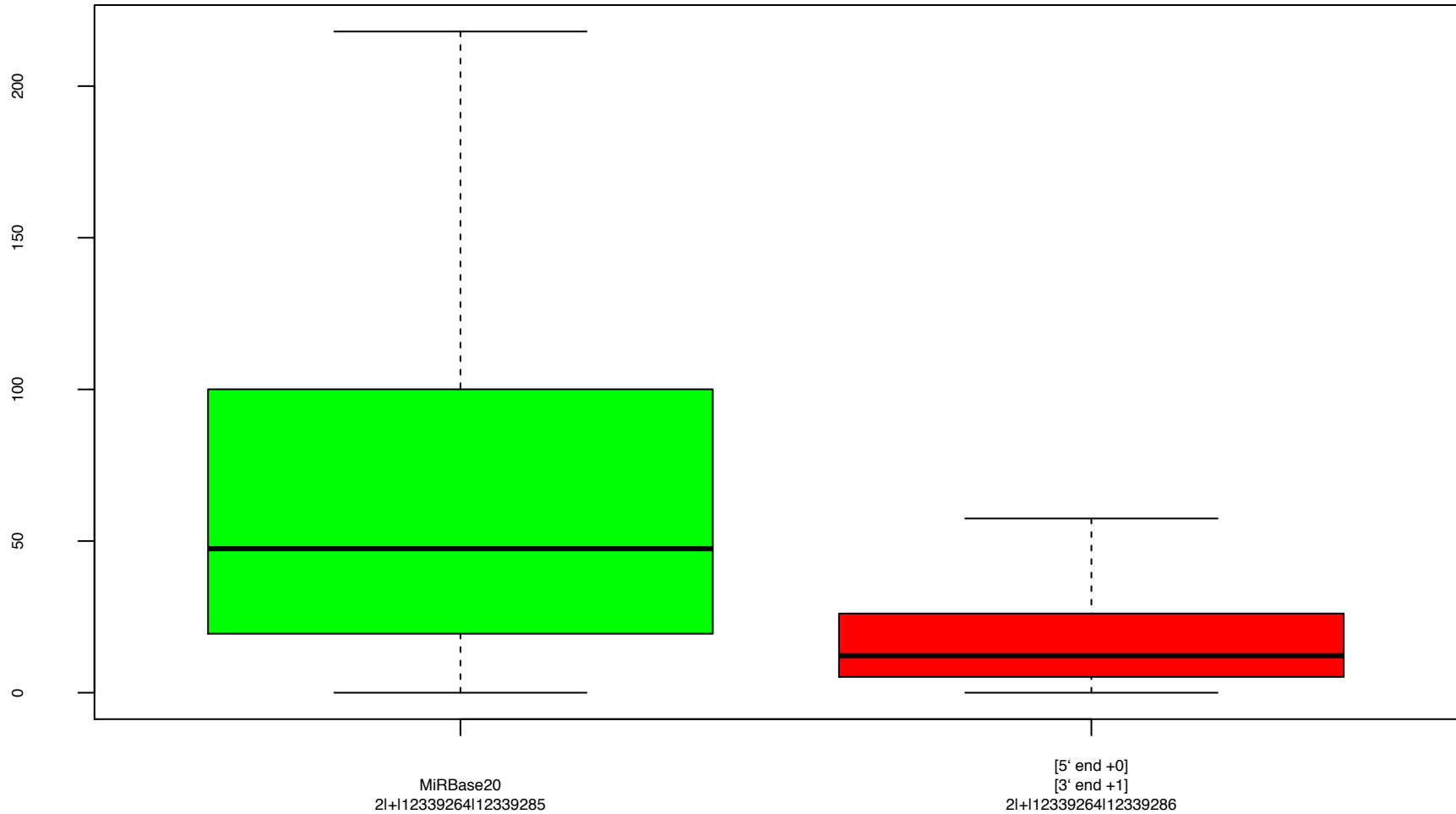
isomiRs

# MIMAT0001343=hsa-miR-425-3p=MI0001448



# MIMAT0018108=hsa-miR-3681-5p=MI0016082

Quantile Normalized Counts

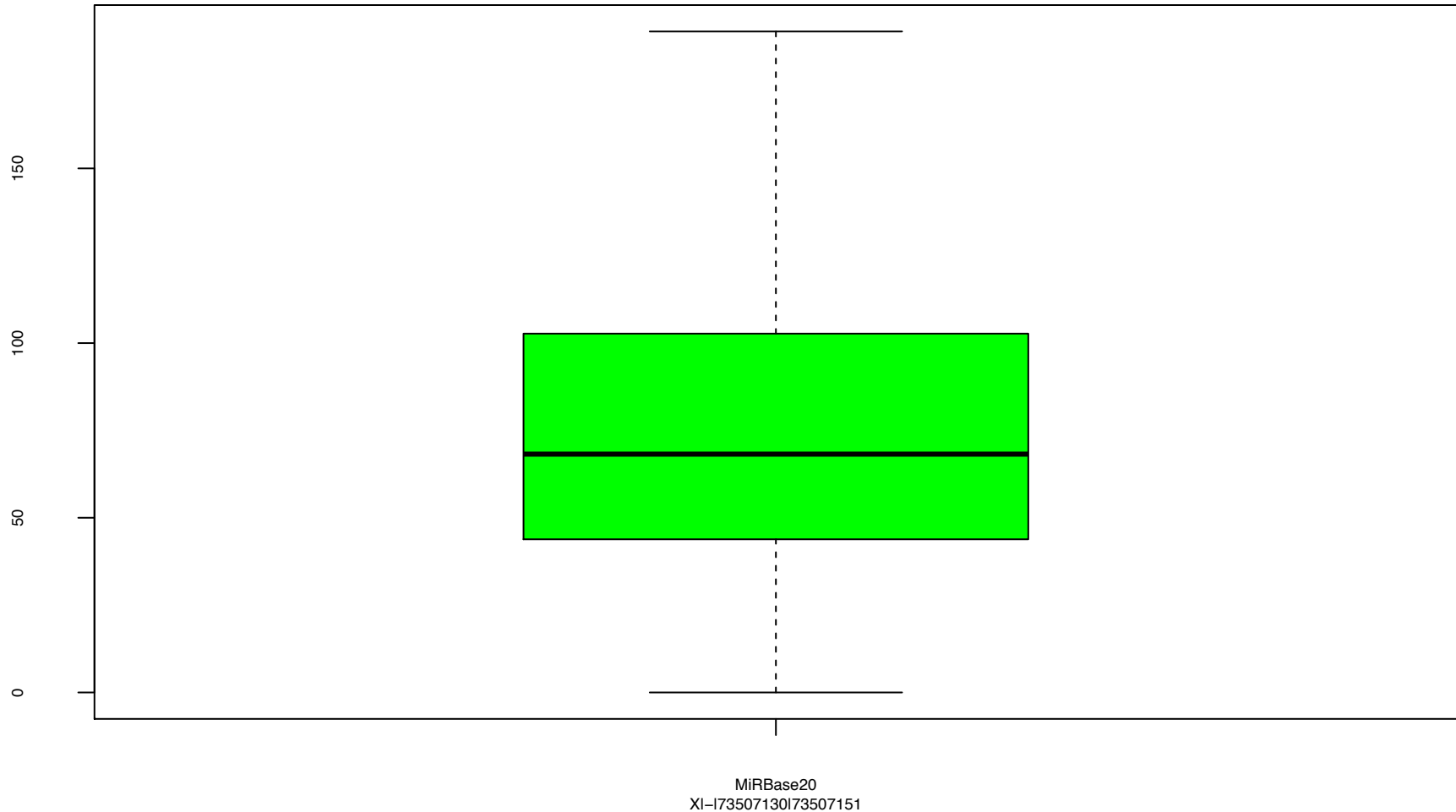


isomiRs



# MIMAT0004688=hsa-miR-374a-3p=MI0000782

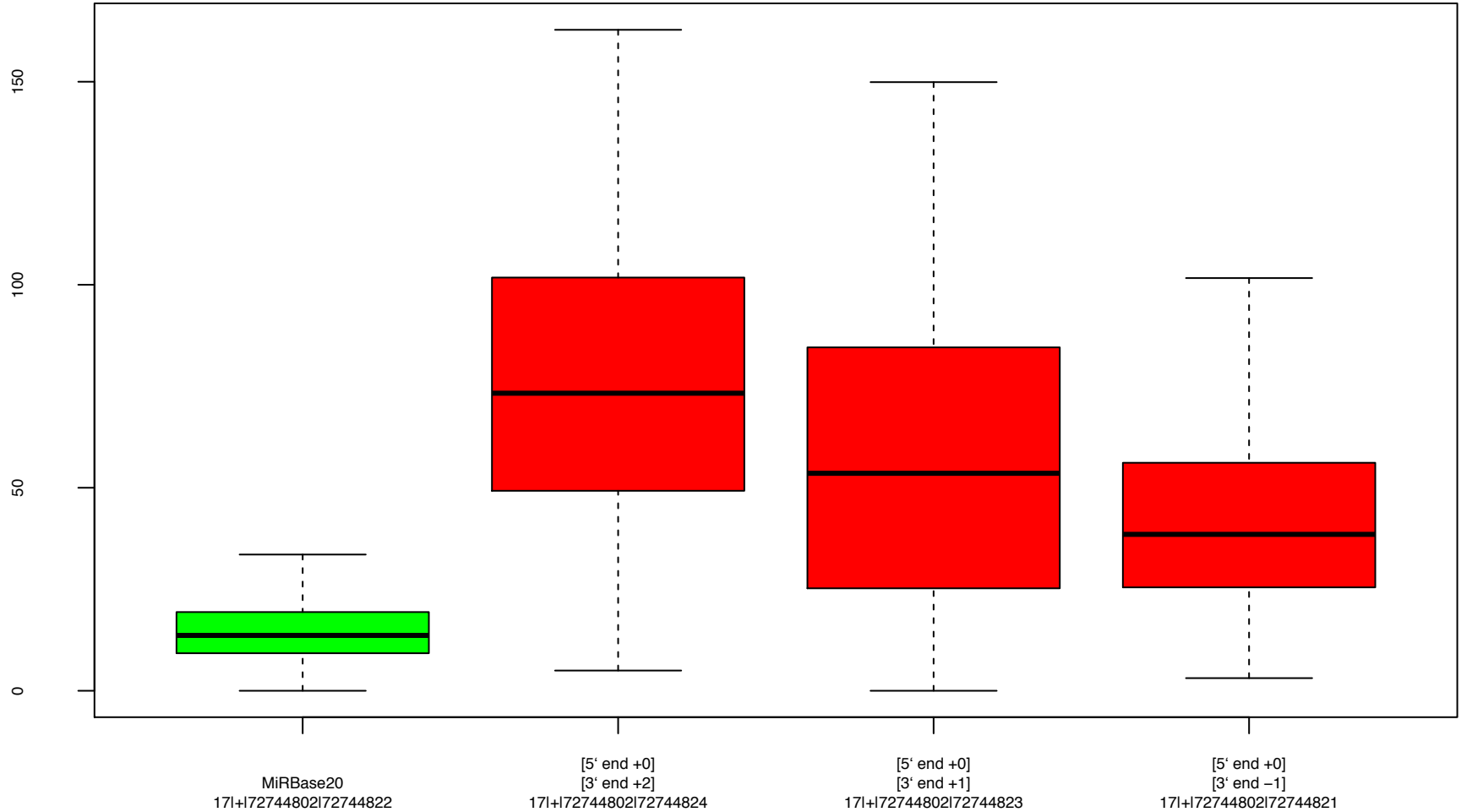
Quantile Normalized Counts



isomiRs

# MIMAT0017994=hsa-miR-3615=MI0016005

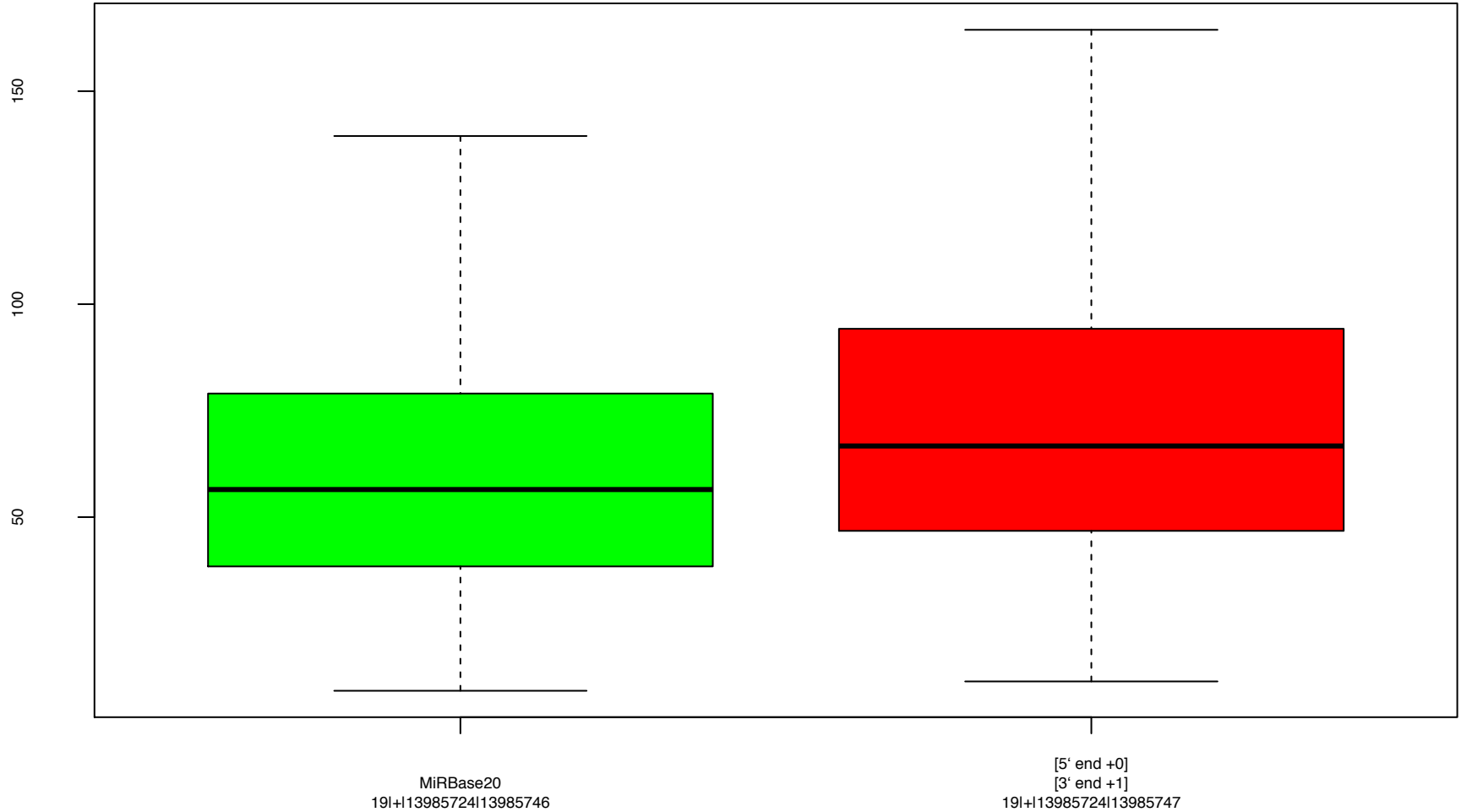
Quantile Normalized Counts



isomiRs

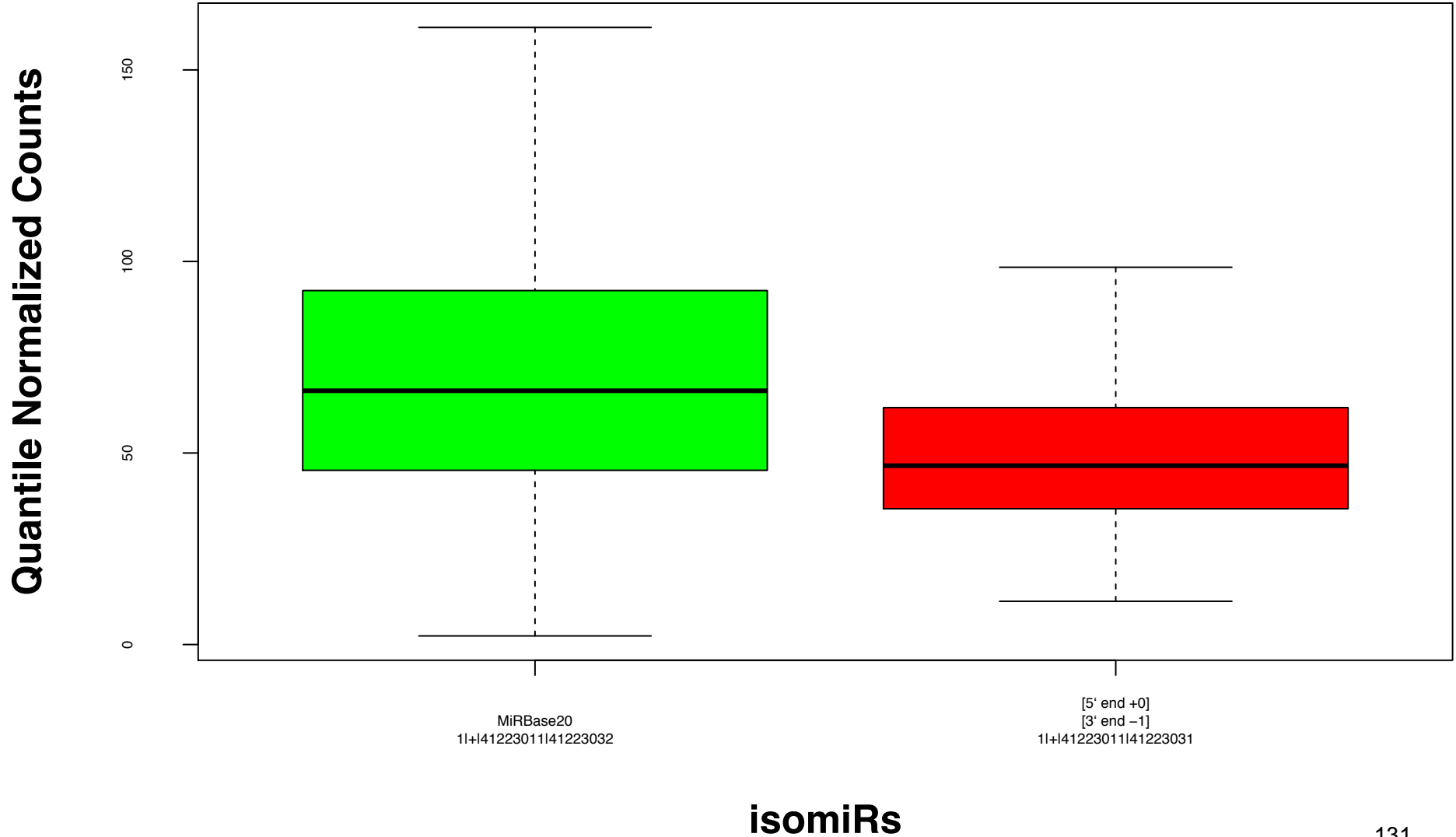
# MIMAT0002821=hsa-miR-181d-5p=MI0003139

Quantile Normalized Counts



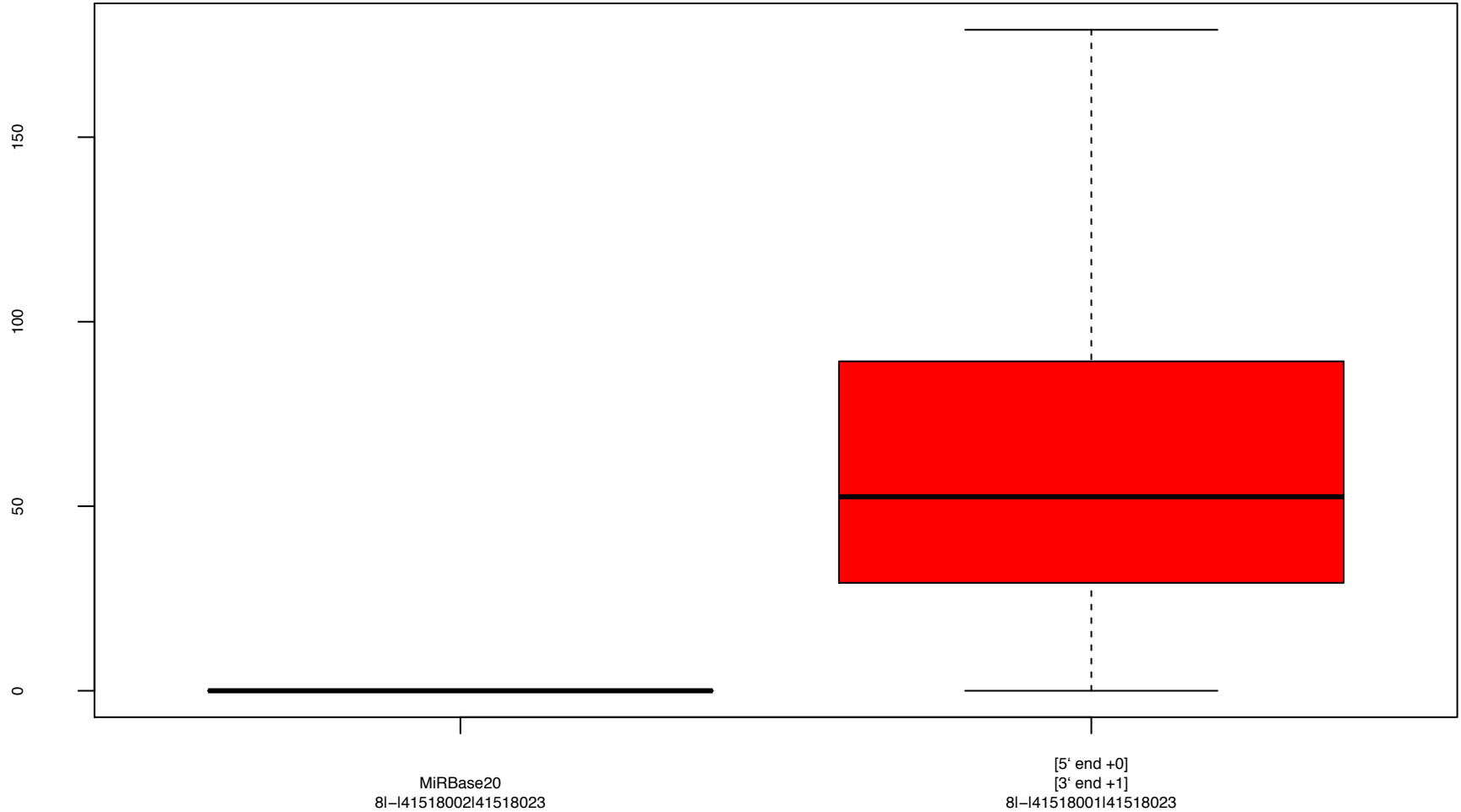
isomiRs

# MIMAT0004674=hsa-miR-30c-1-3p=MI0000736



# MIMAT0002177=hsa-miR-486-5p=MI0002470

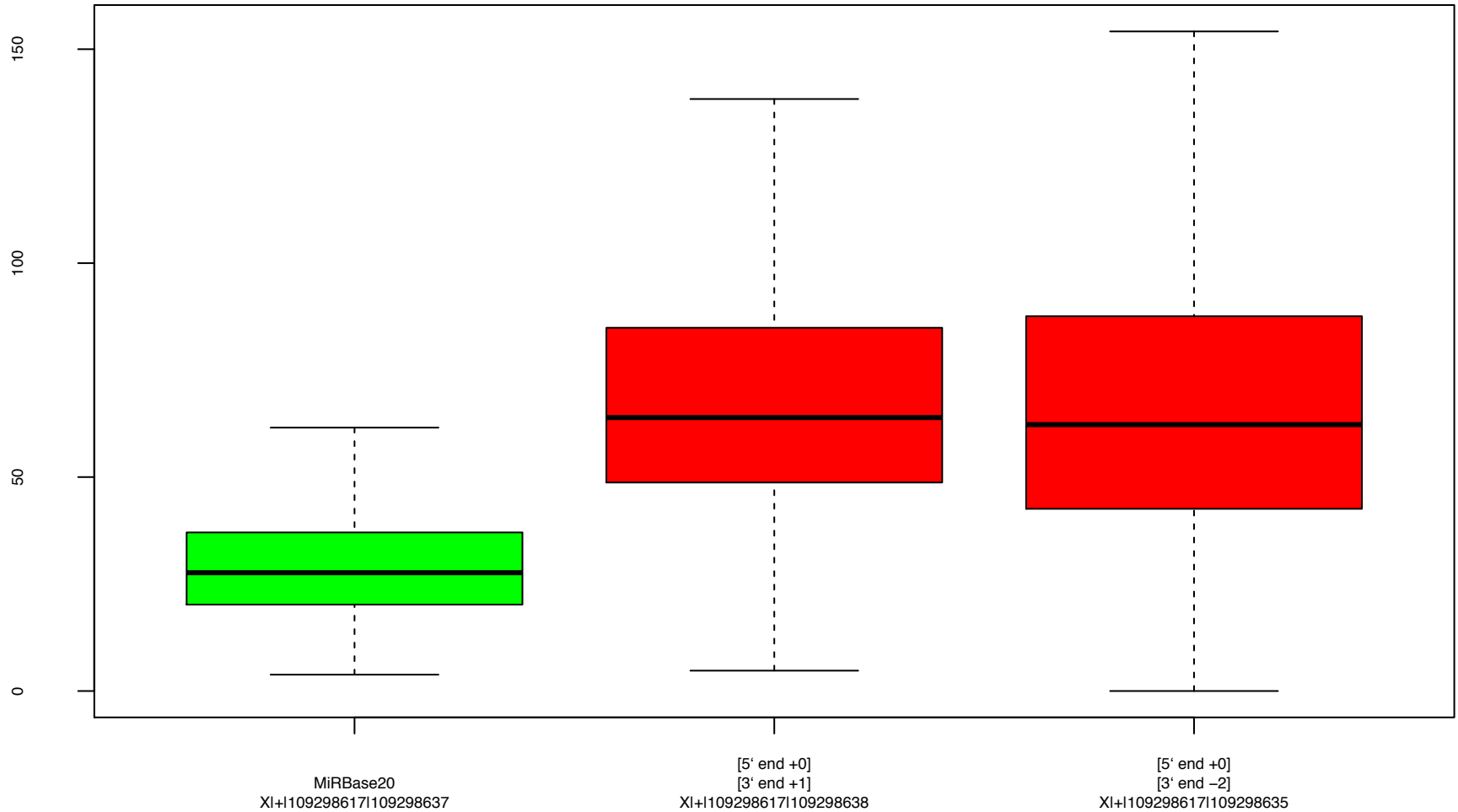
Quantile Normalized Counts



isomiRs

# MIMAT0003322=hsa-miR-652-3p=MI0003667

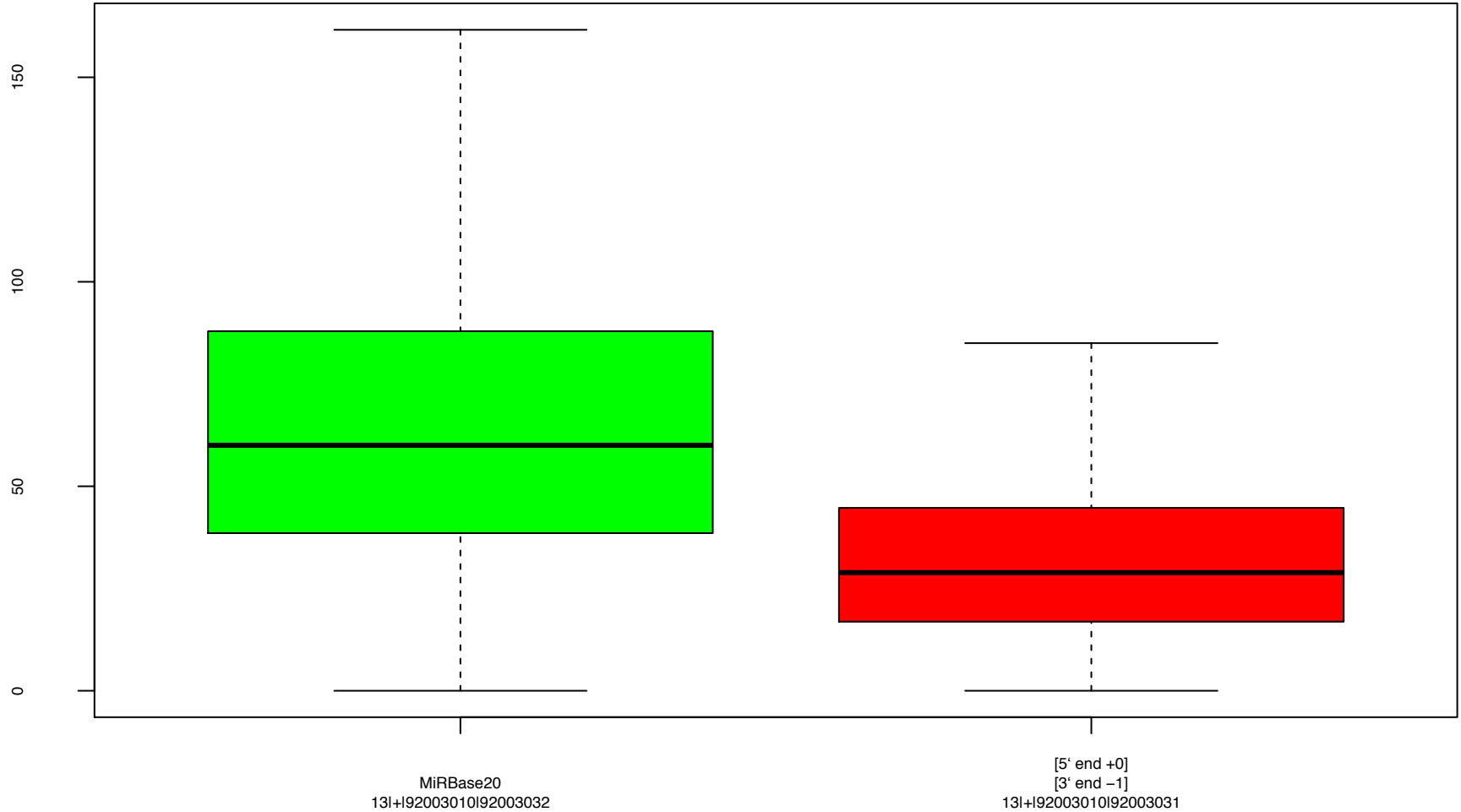
Quantile Normalized Counts



isomiRs

# MIMAT0000072=hsa-miR-18a-5p=MI0000072

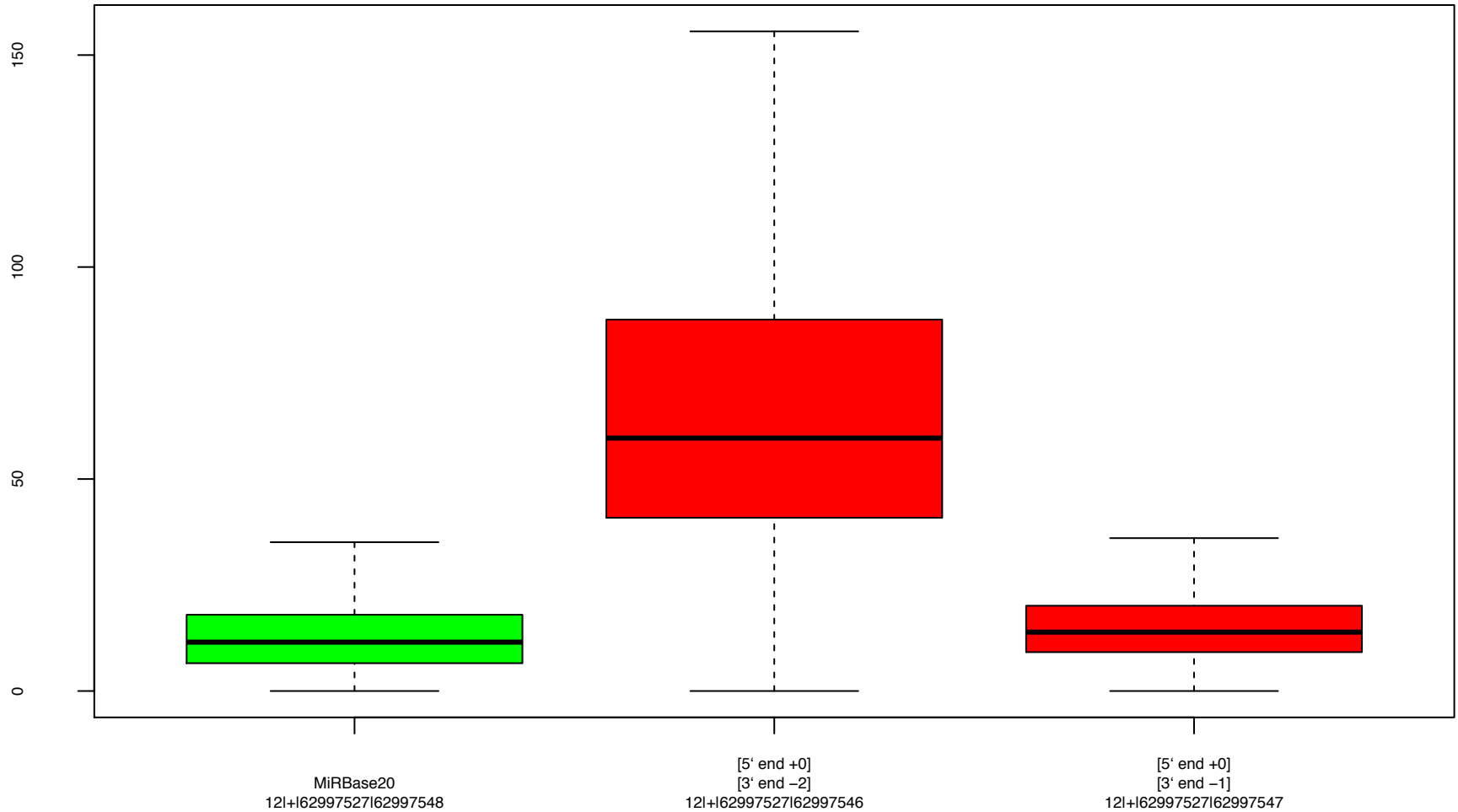
Quantile Normalized Counts



isomiRs

# MIMAT0004585=hsa-let-7i-3p=MI0000434

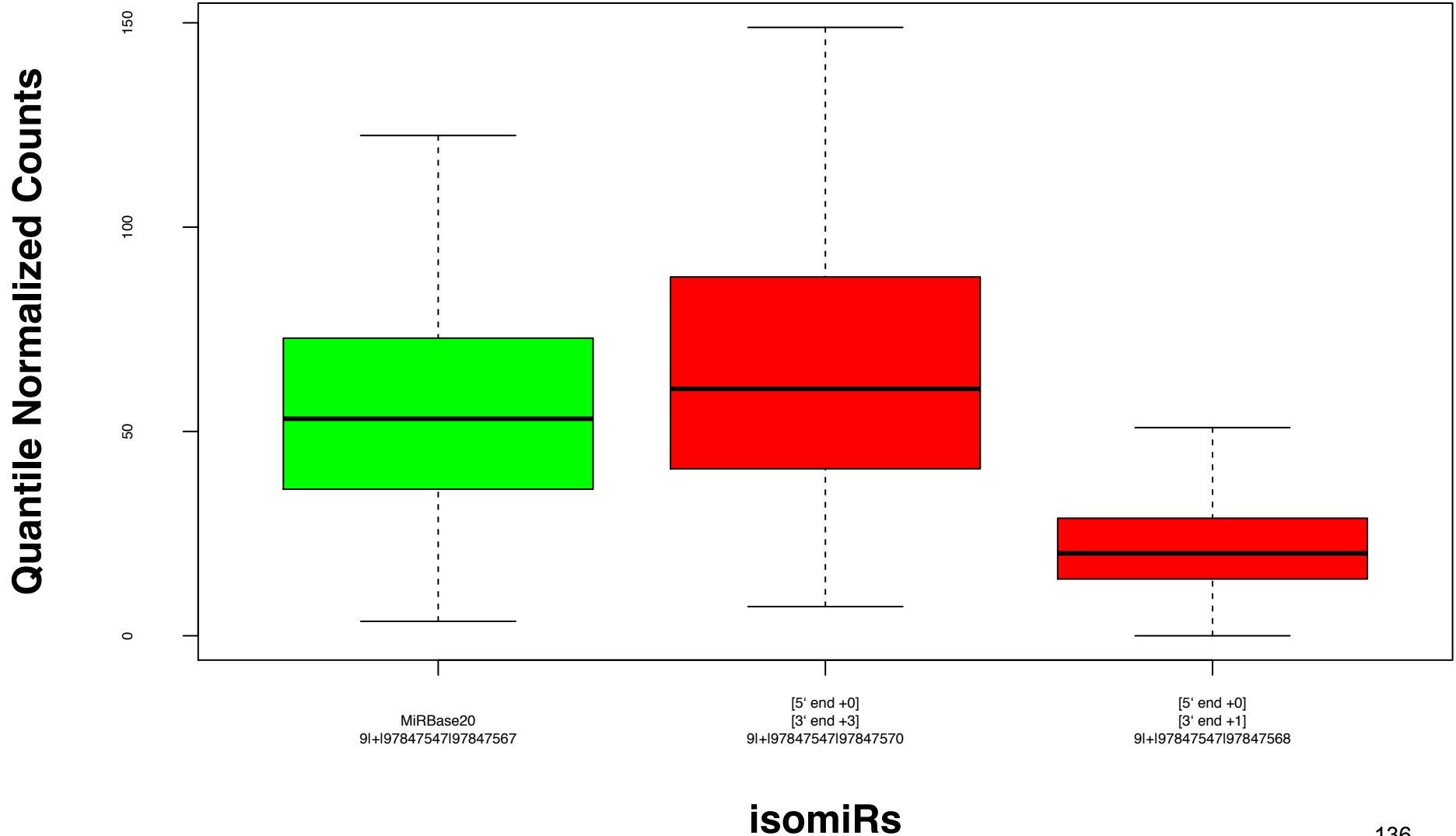
Quantile Normalized Counts



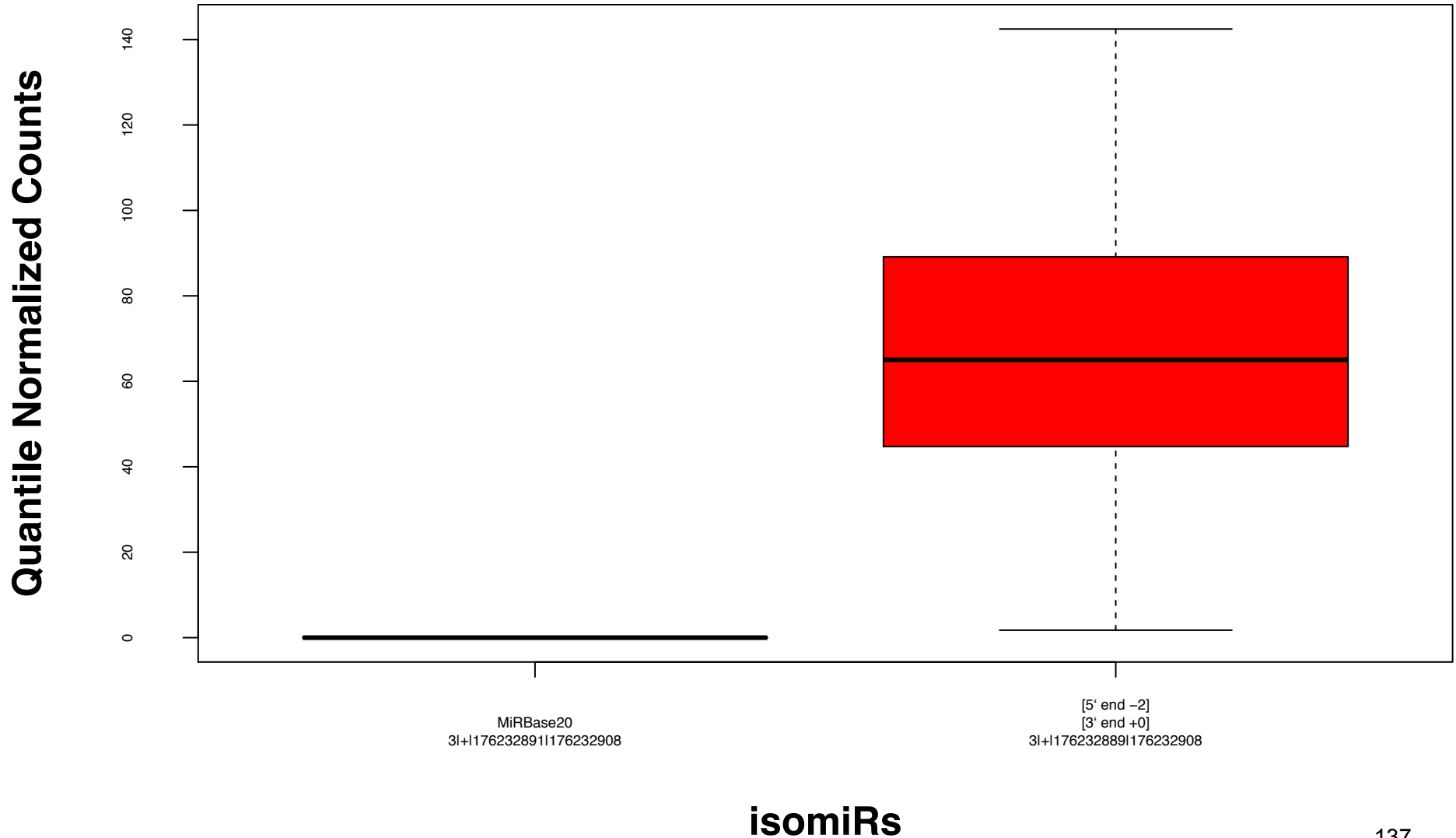
isomiRs



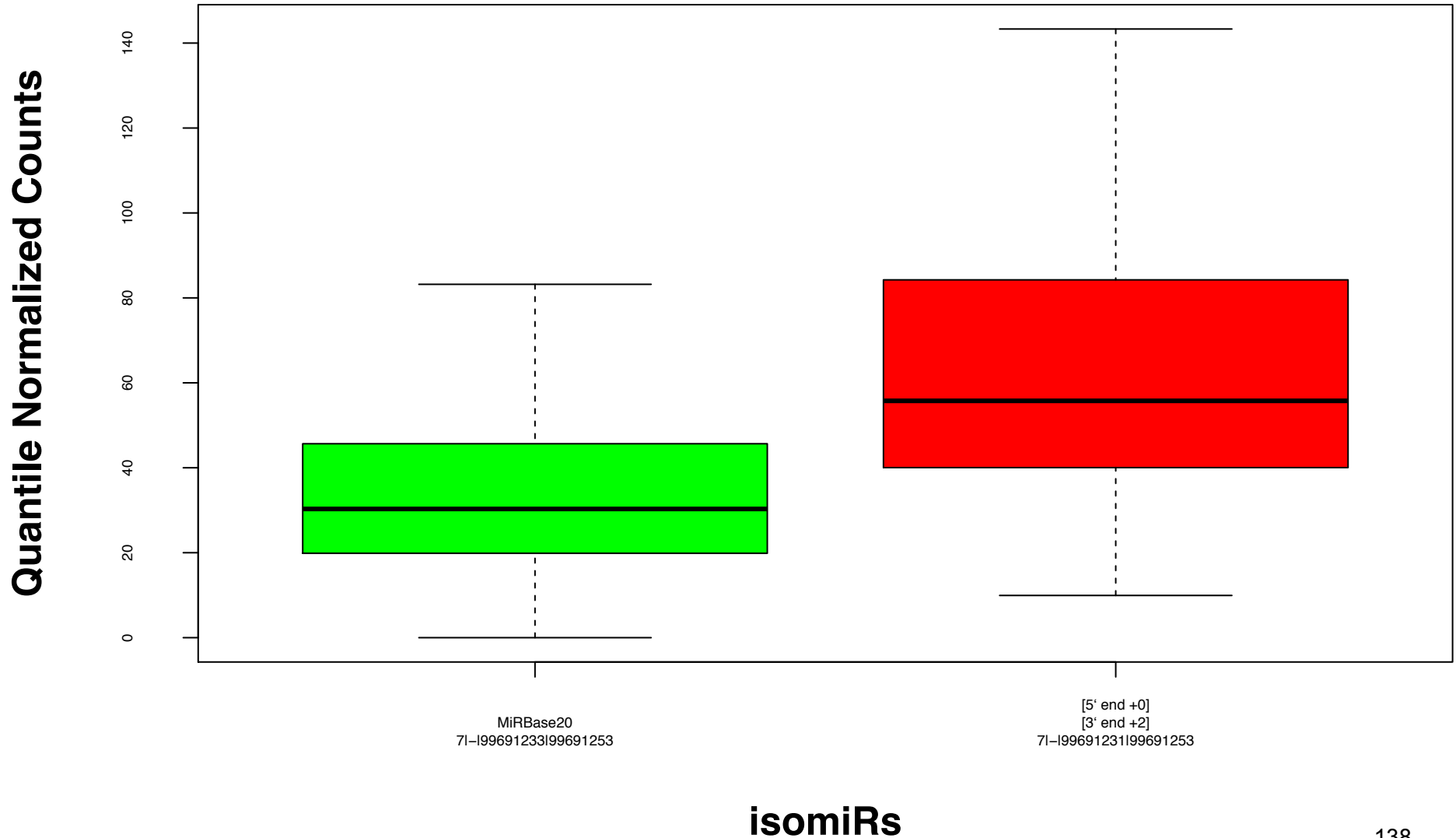
# MIMAT0000418=hsa-miR-23b-3p=MI0000439



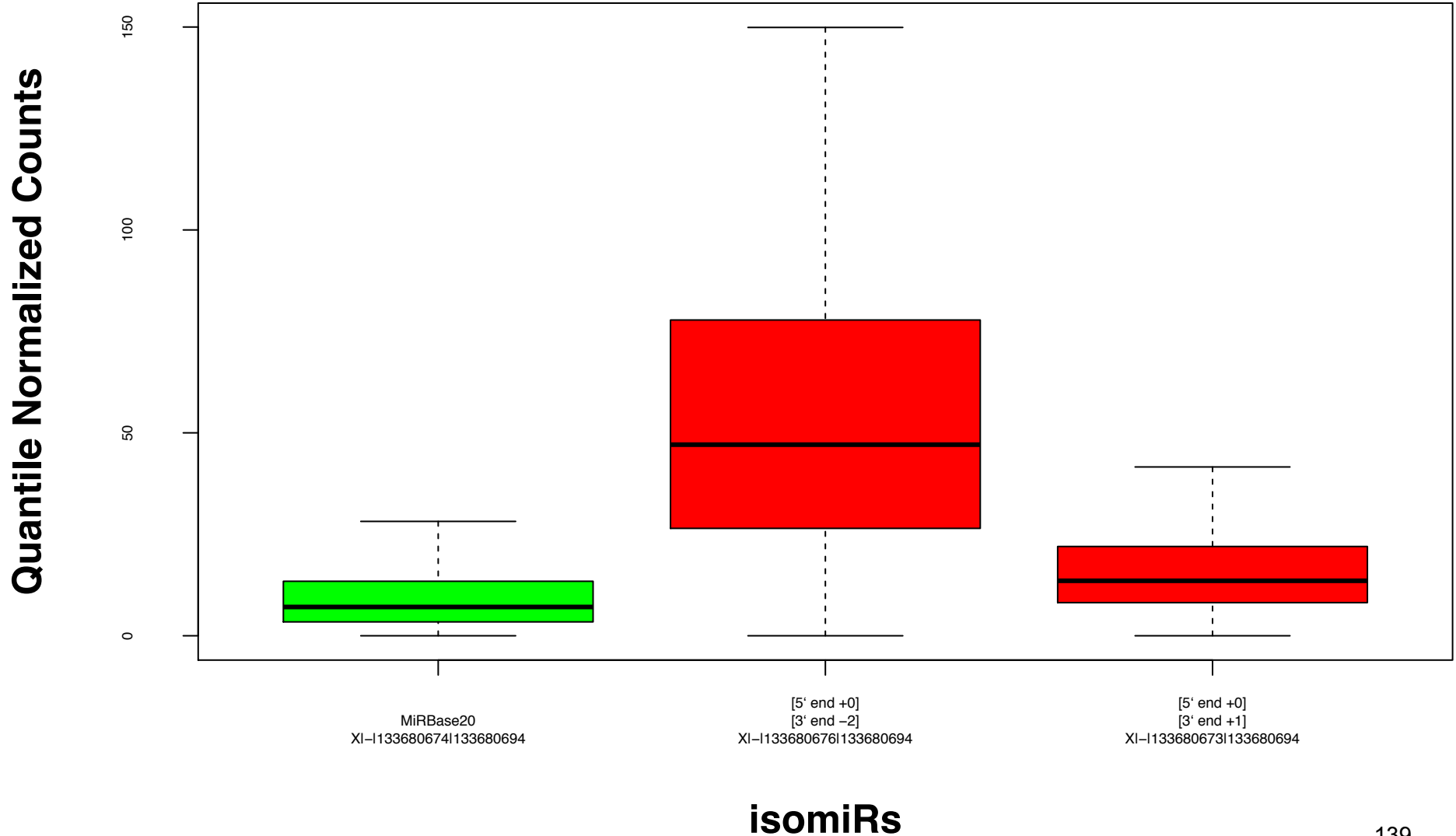
# MIMAT0031180=hsa-miR-7977=MI0025753



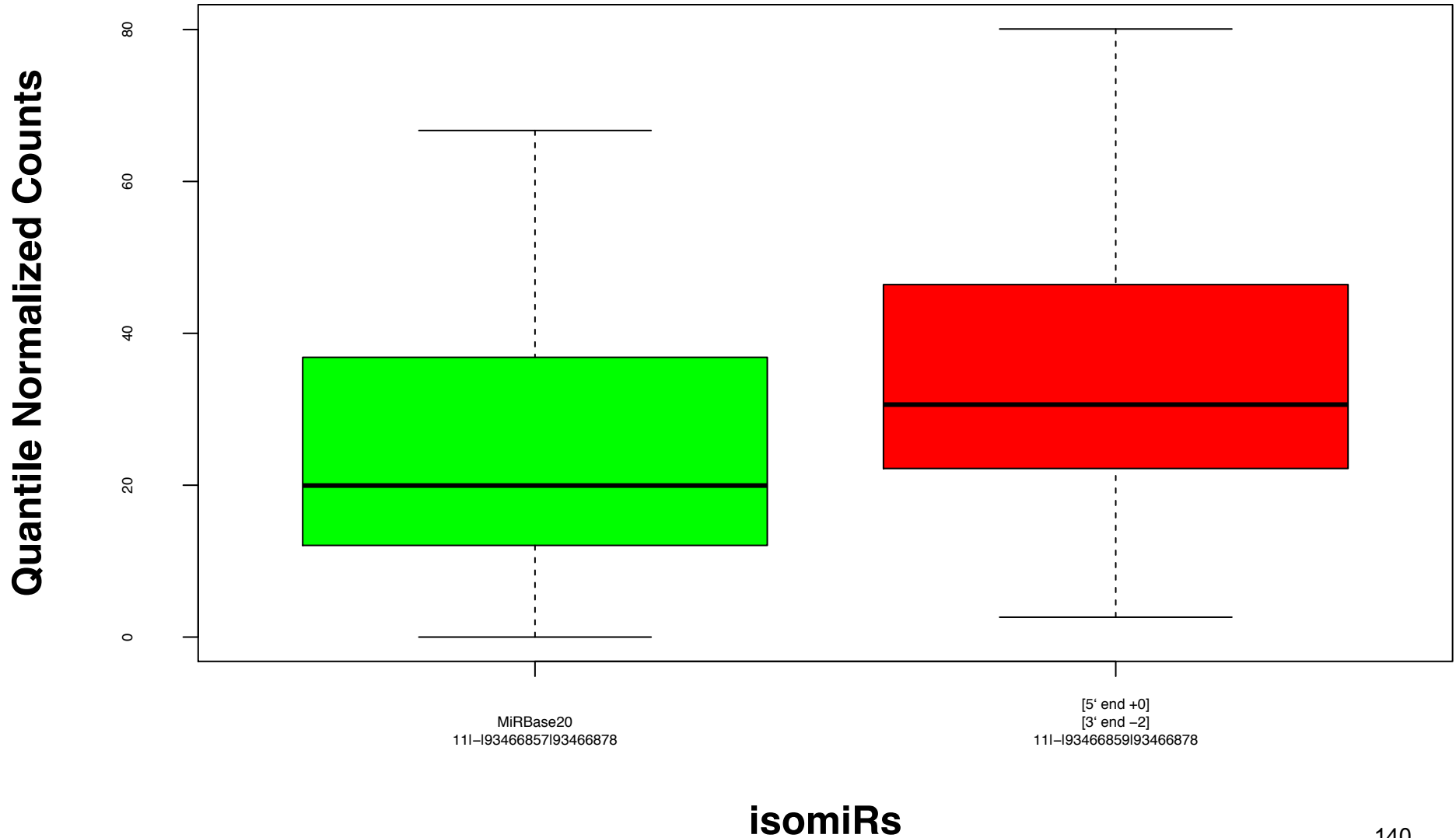
# MIMAT0004498=hsa-miR-25-5p=MI0000082



# MIMAT0004749=hsa-miR-424-3p=MI0001446

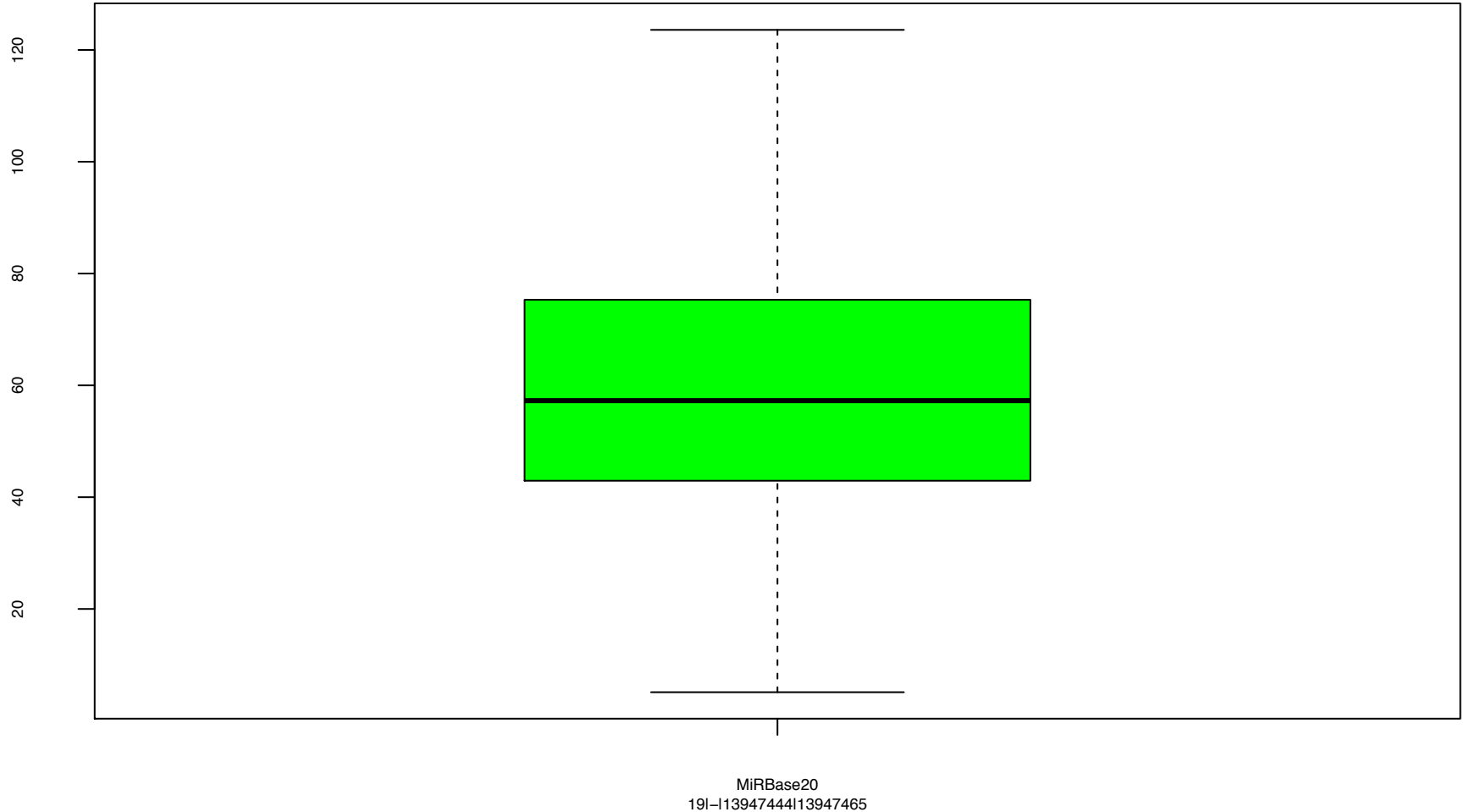


# MIMAT0022720=hsa-miR-1304-3p=MI0006371



# MIMAT0004496=hsa-miR-23a-5p=MI0000079

Quantile Normalized Counts

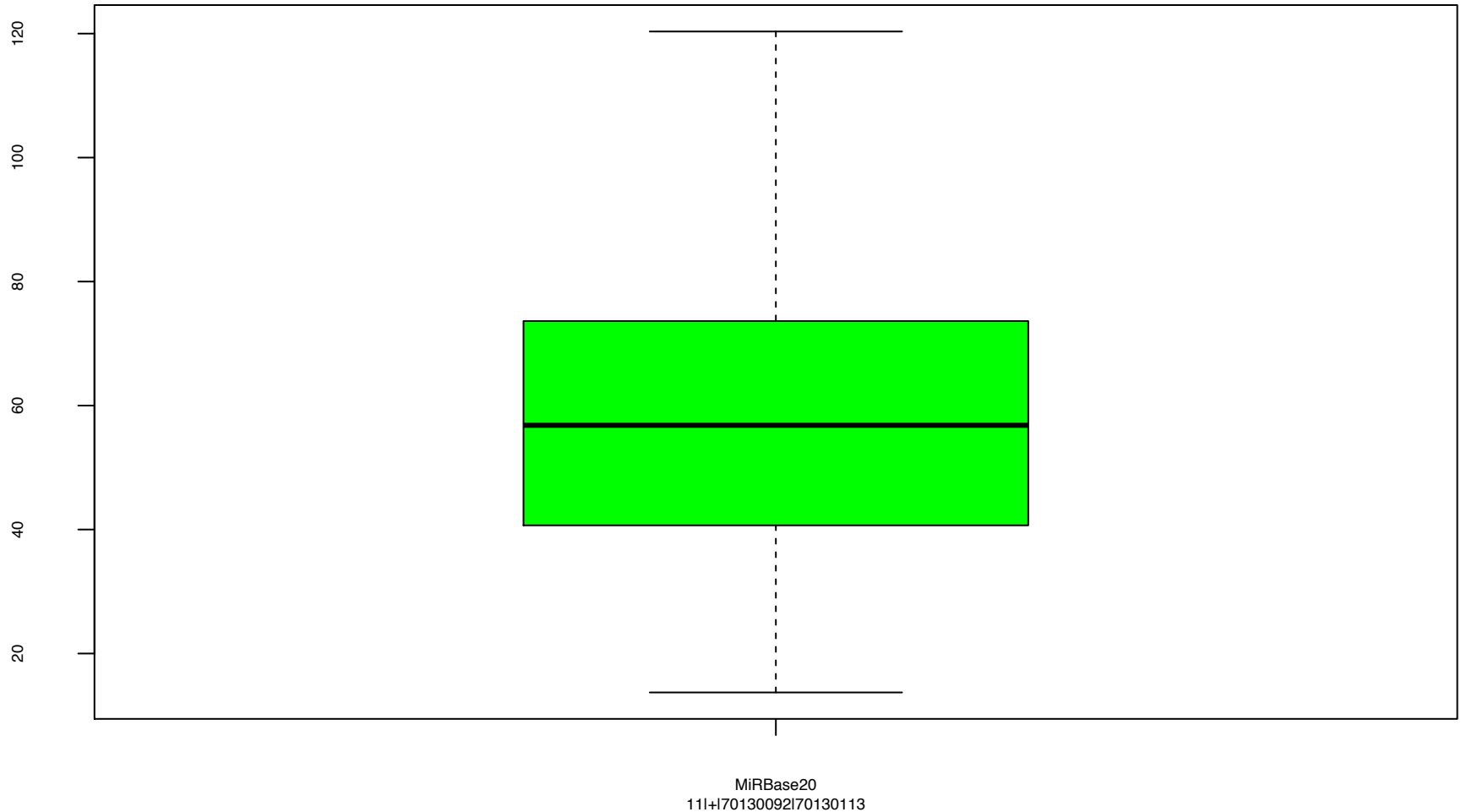


MiRBase20  
19l-113947444|13947465

isomiRs

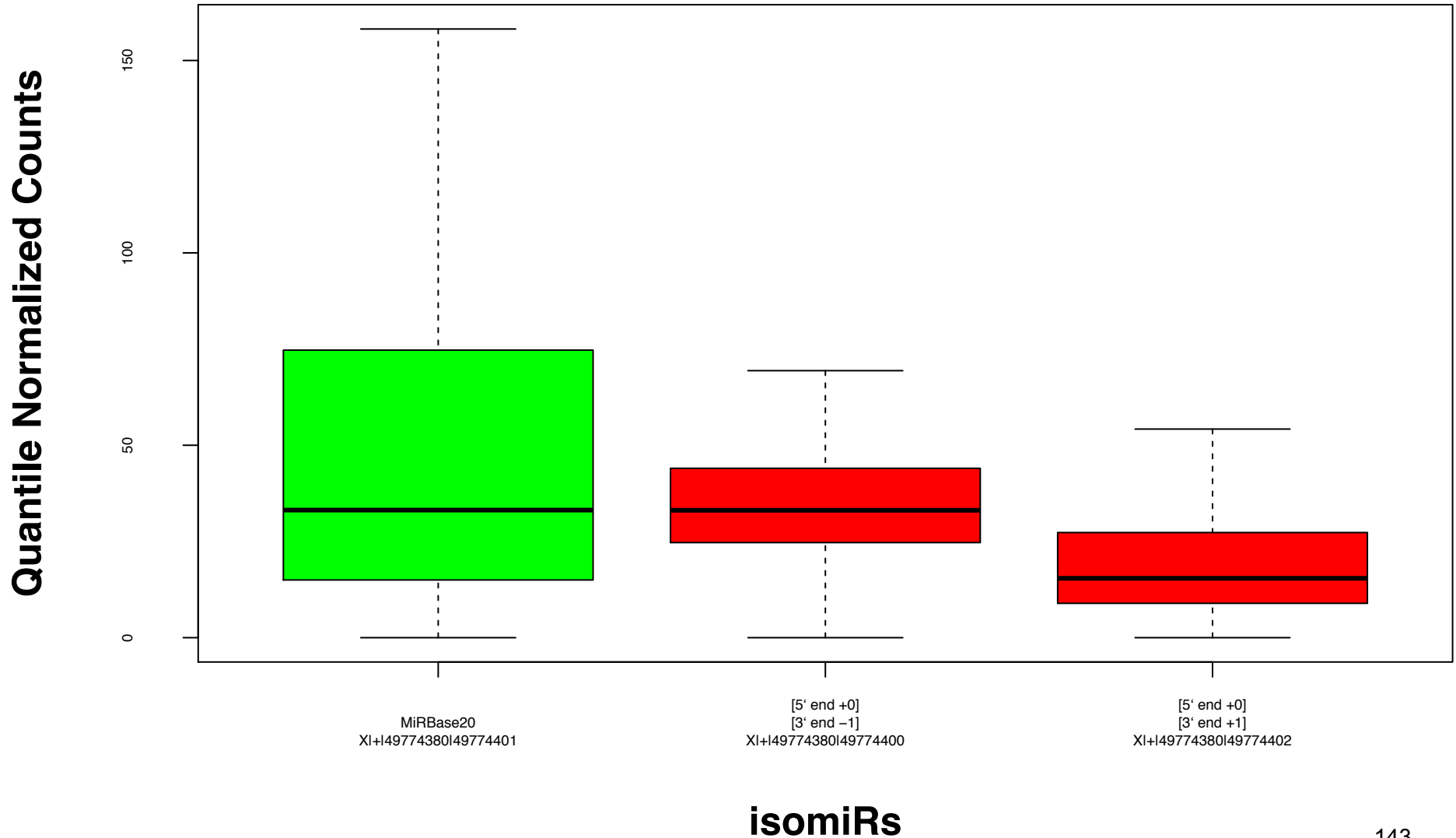
# MIMAT0005882=hsa-miR-548k=MI0006354

Quantile Normalized Counts



isomiRs

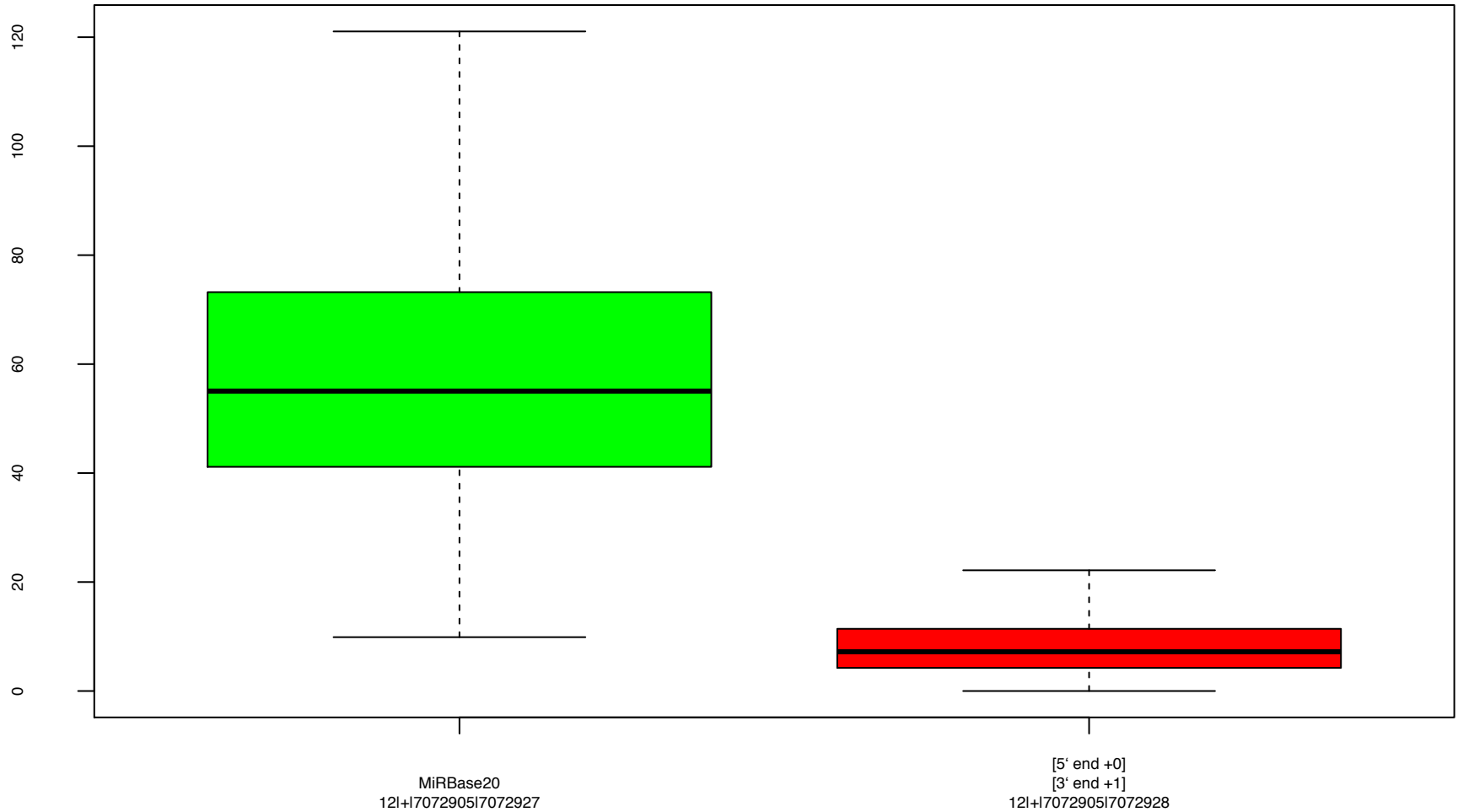
# MIMAT0004774=hsa-miR-501-3p=MI0003185





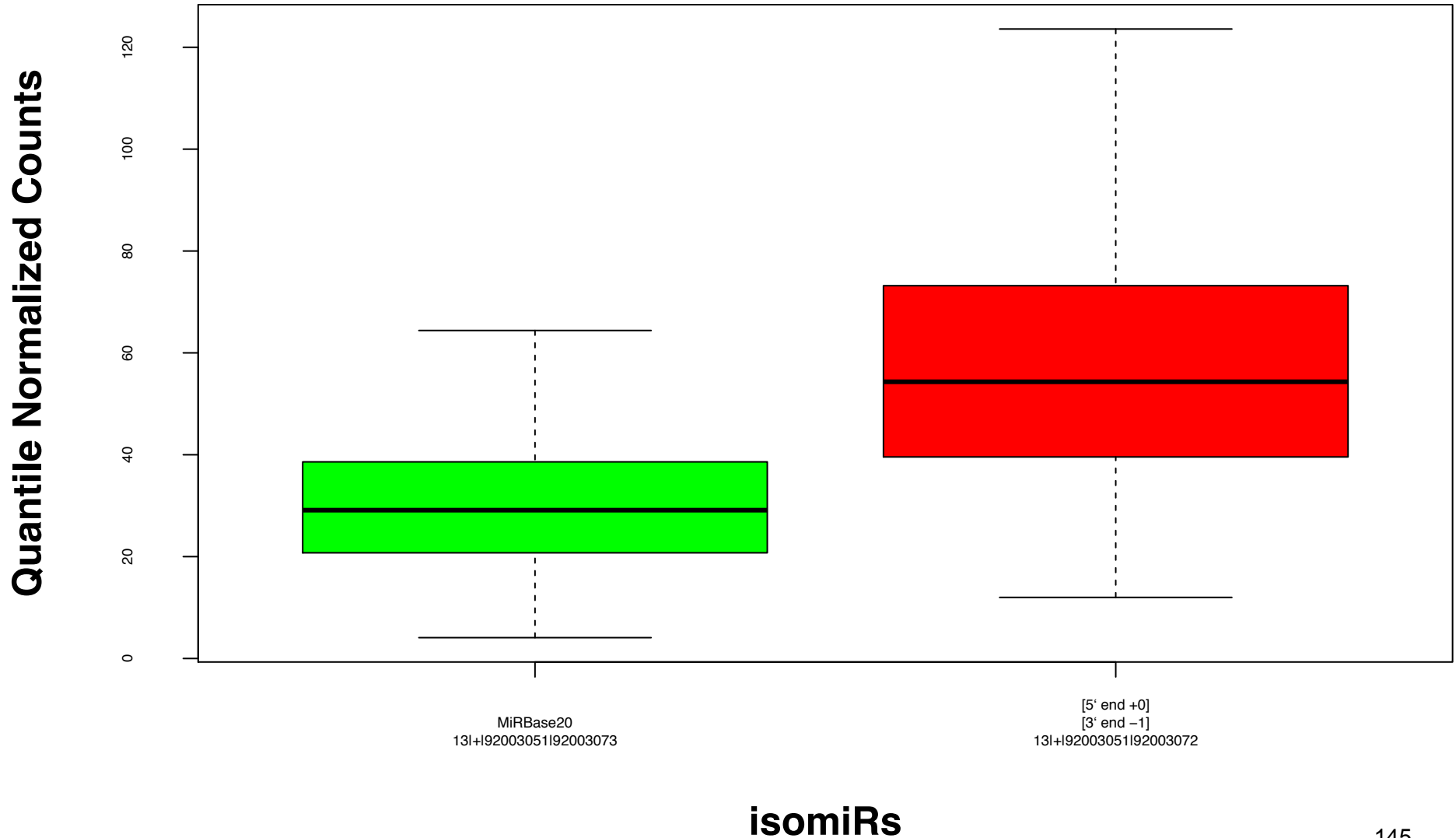
# MIMAT0000617=hsa-miR-200c-3p=MI0000650

Quantile Normalized Counts



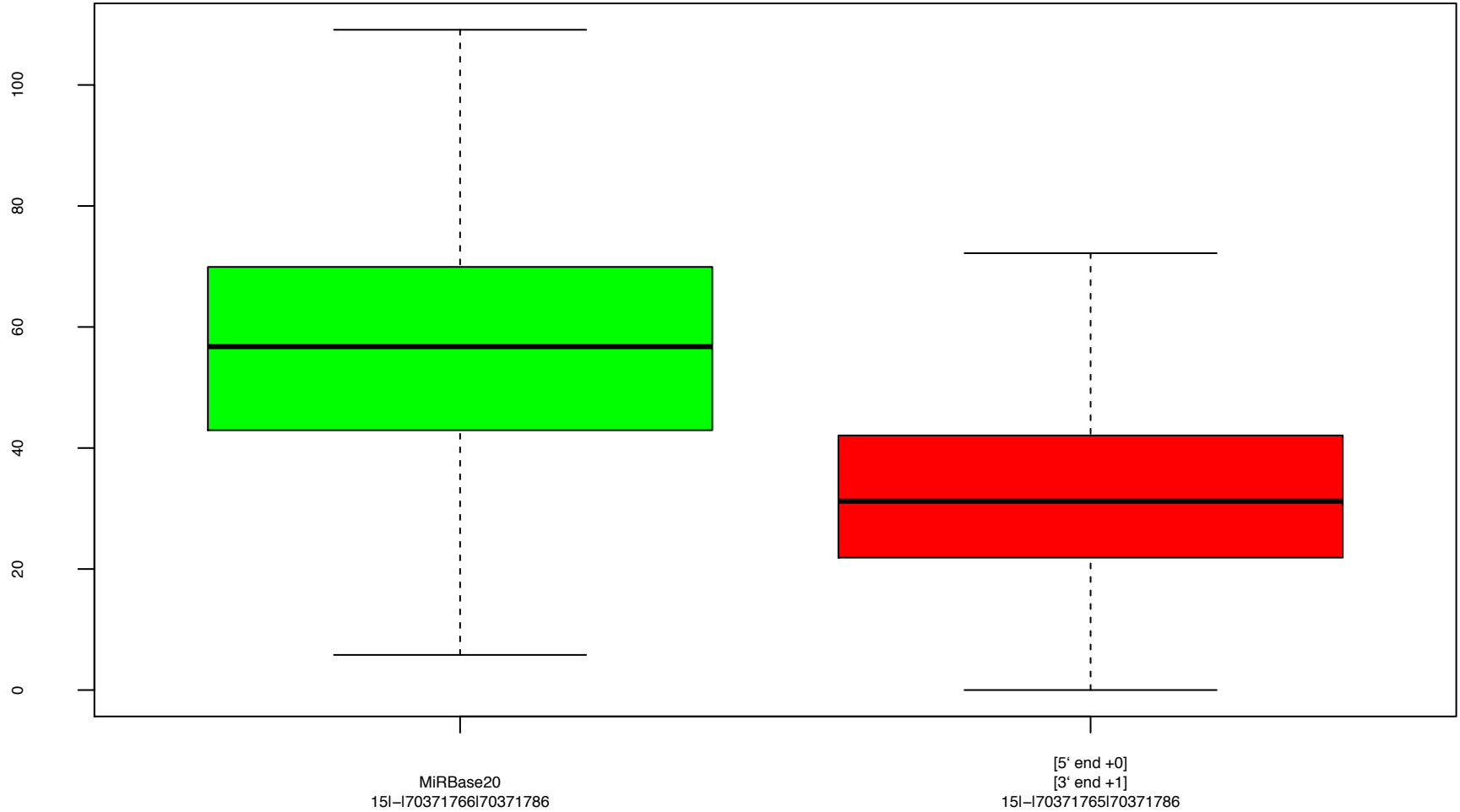
isomiRs

# MIMAT0002891=hsa-miR-18a-3p=MI0000072



# MIMAT0004810=hsa-miR-629-5p=MI0003643

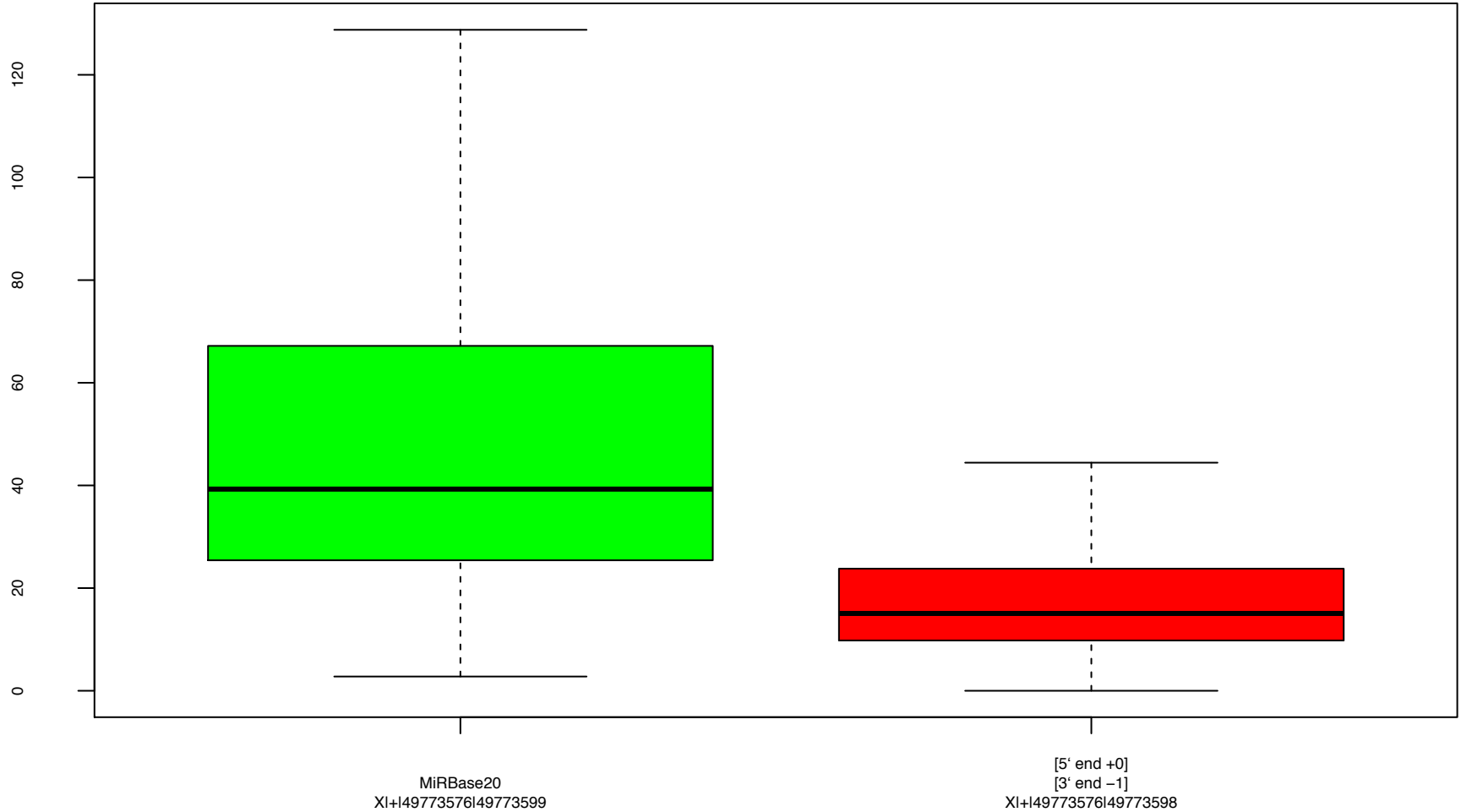
Quantile Normalized Counts



isomiRs

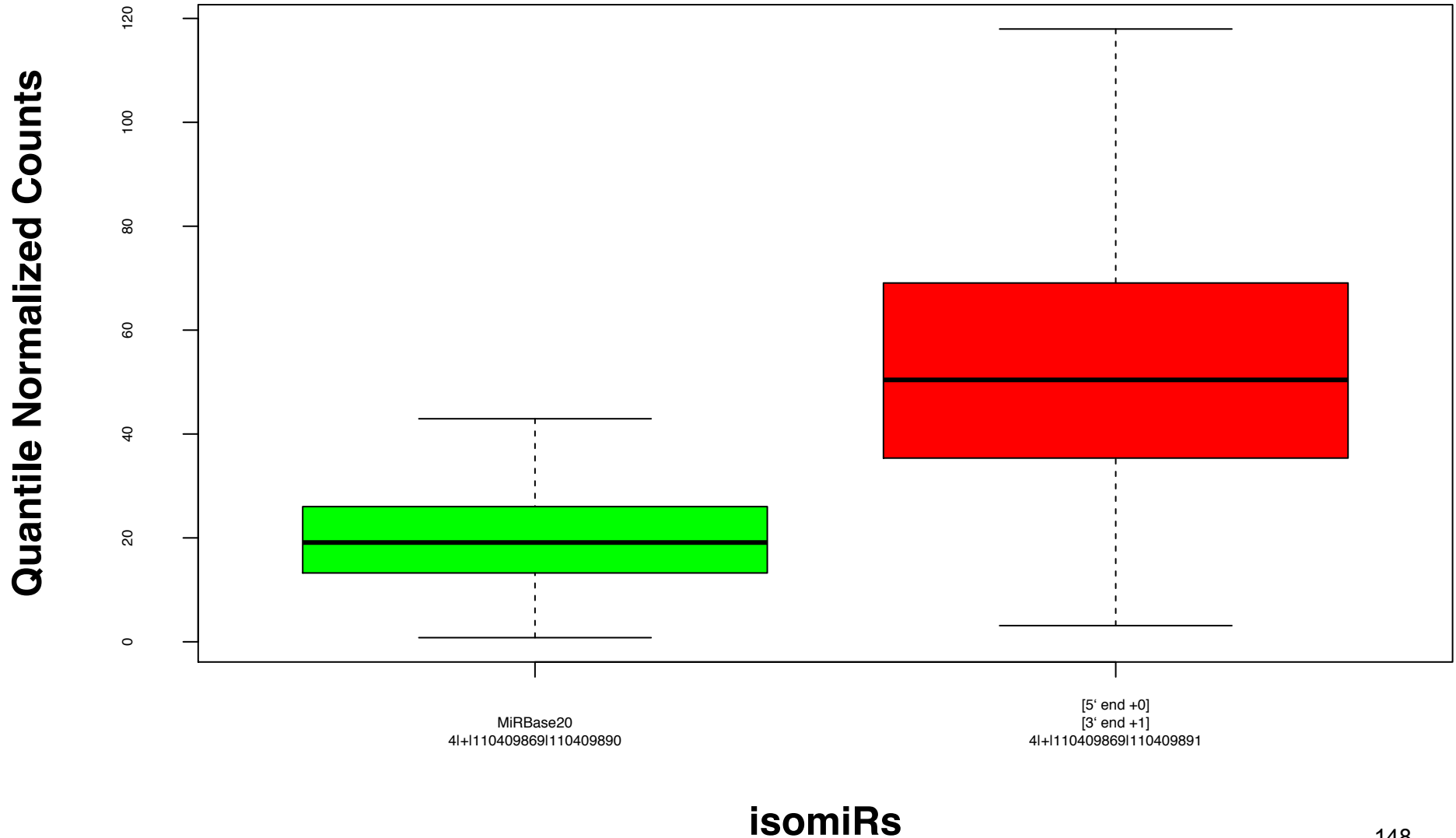
# MIMAT0000705=hsa-miR-362-5p=MI0000762

Quantile Normalized Counts



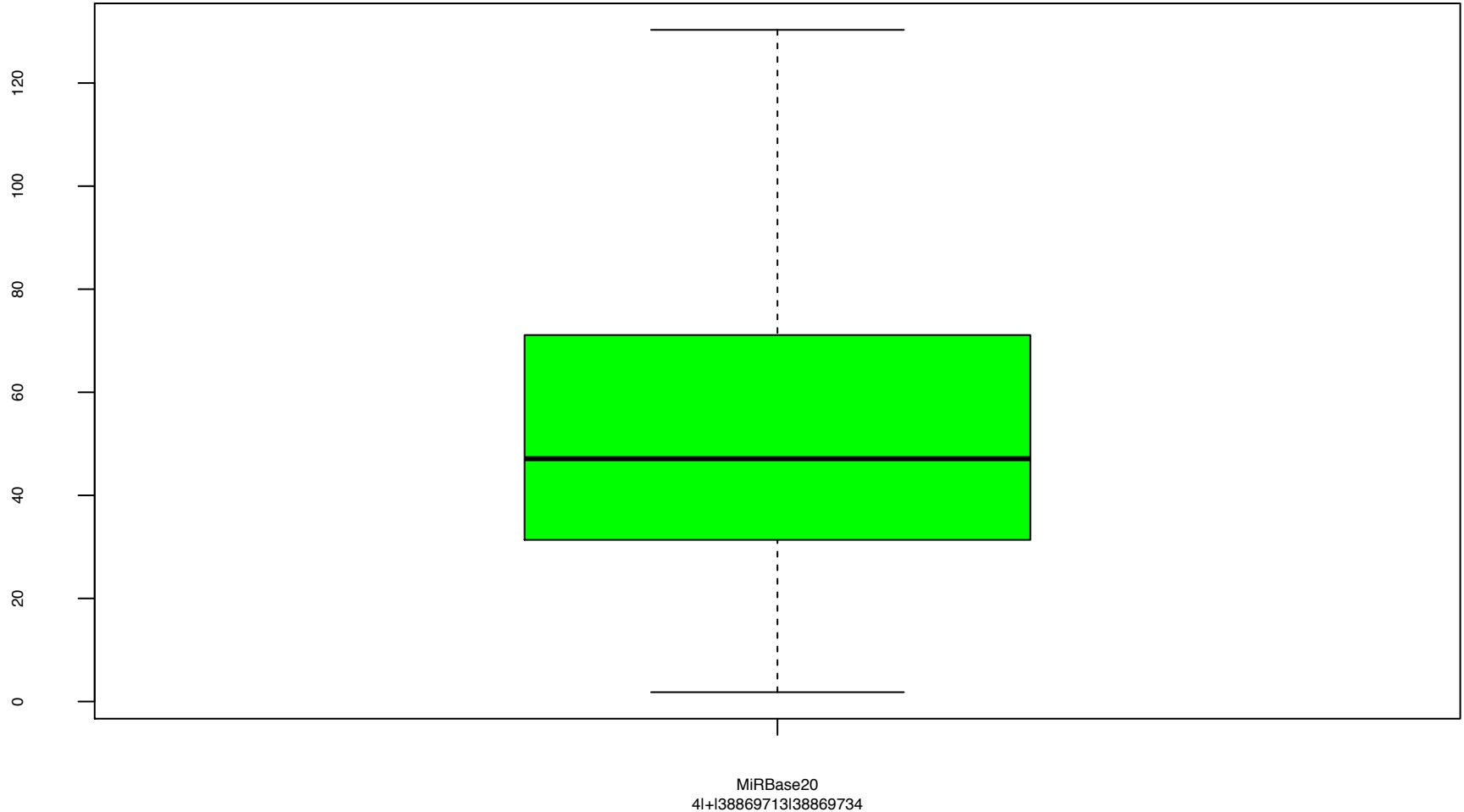
isomiRs

# MIMAT0003241=hsa-miR-576-5p=MI0003583



# MIMAT0003239=hsa-miR-574-3p=MI0003581

Quantile Normalized Counts

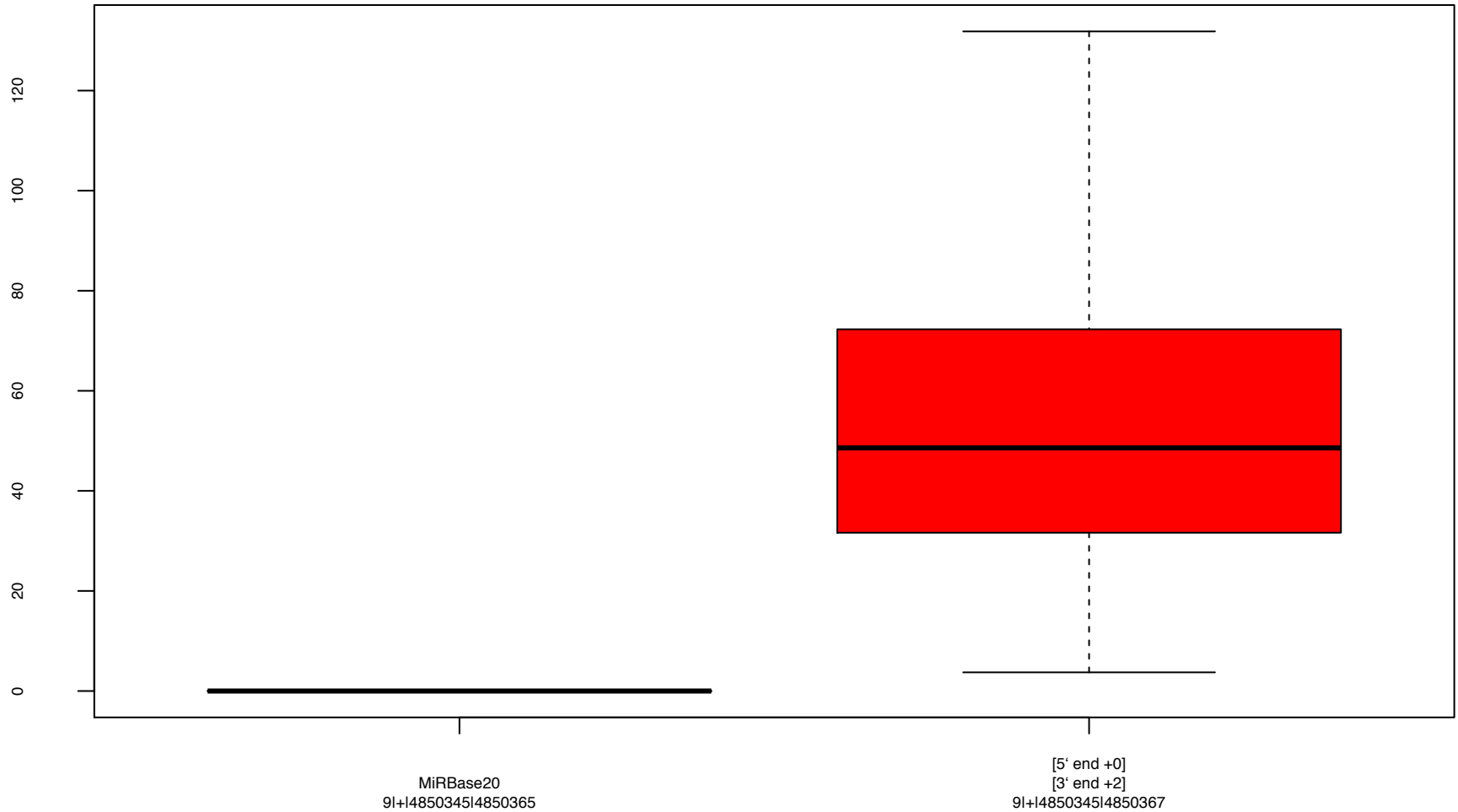


MiRBase20  
4l+l38869713l38869734

isomiRs

# MIMAT0000099\_1=hsa-miR-101-3p=MI0000739

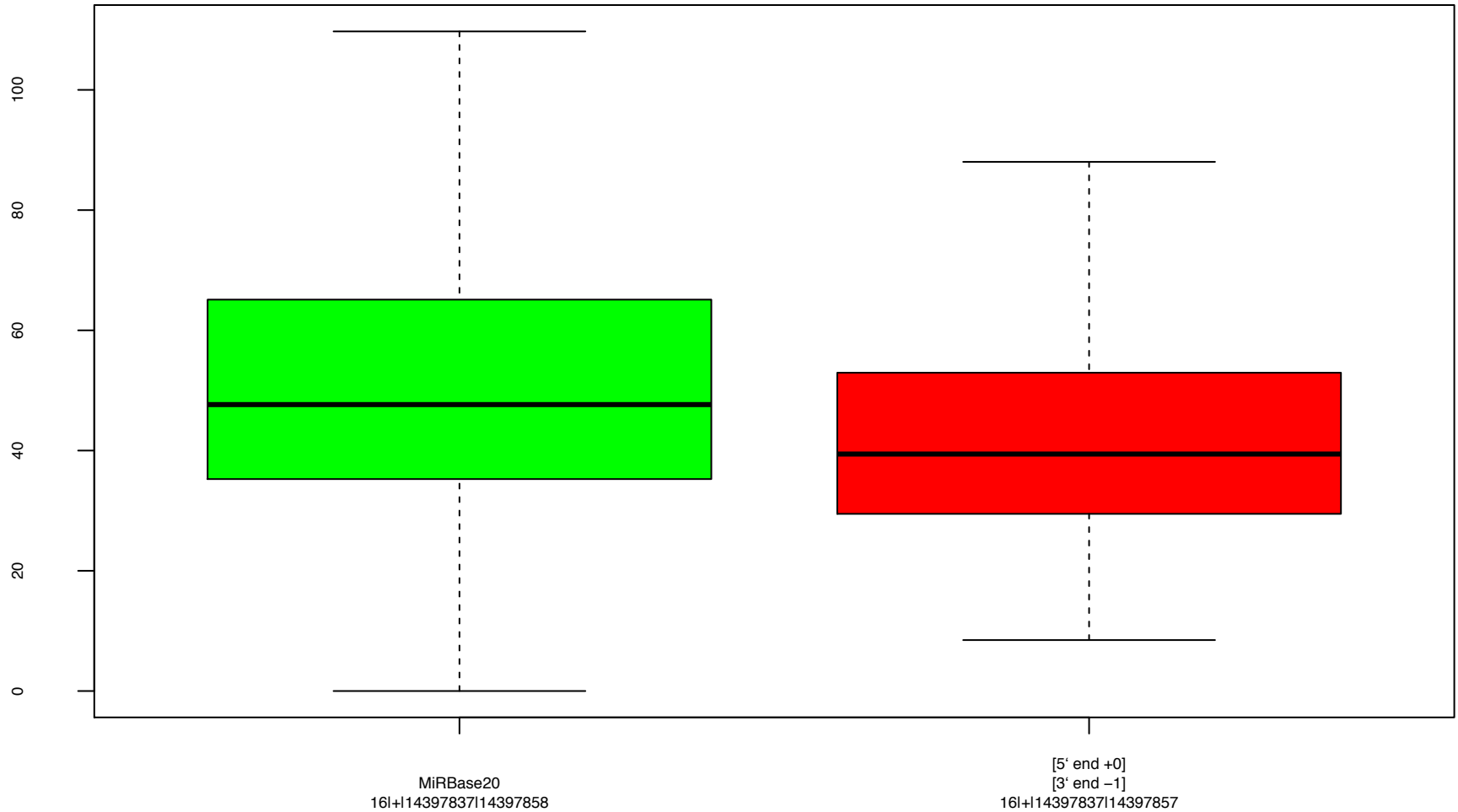
Quantile Normalized Counts



isomiRs

# MIMAT0004767=hsa-miR-193b-5p=MI0003137

Quantile Normalized Counts

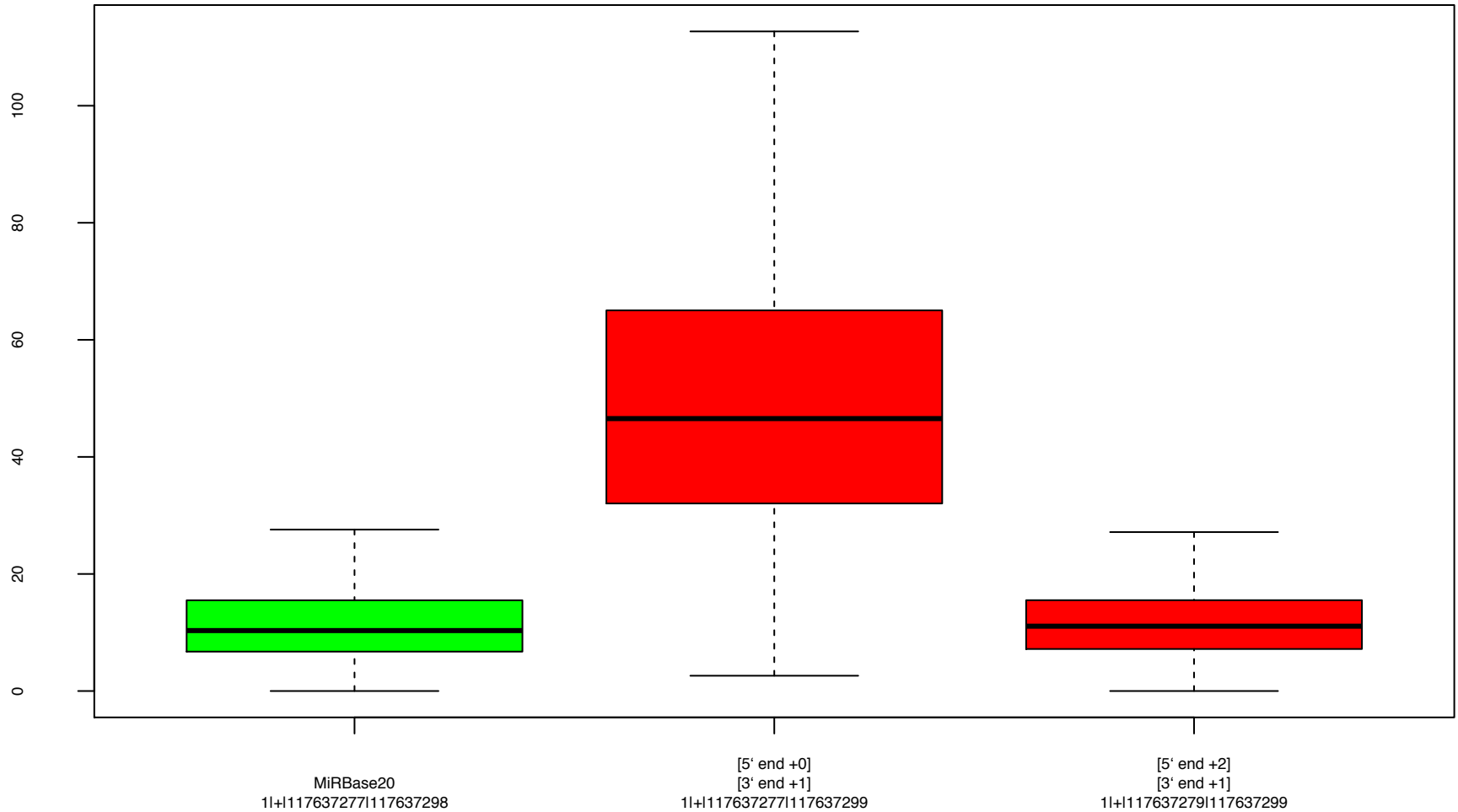


isomiRs



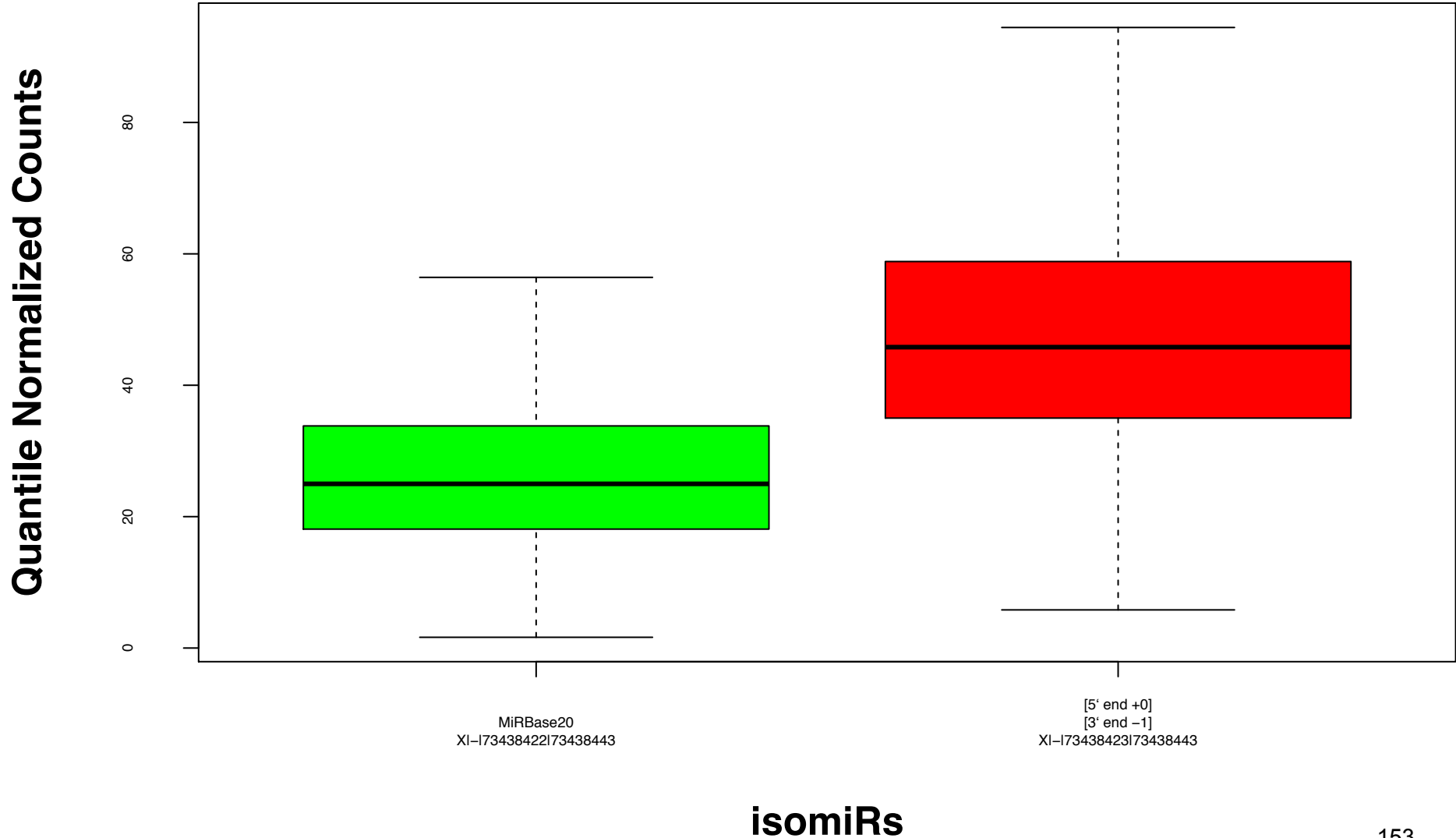
# MIMAT0004985=hsa-miR-942-5p=MI0005767

Quantile Normalized Counts

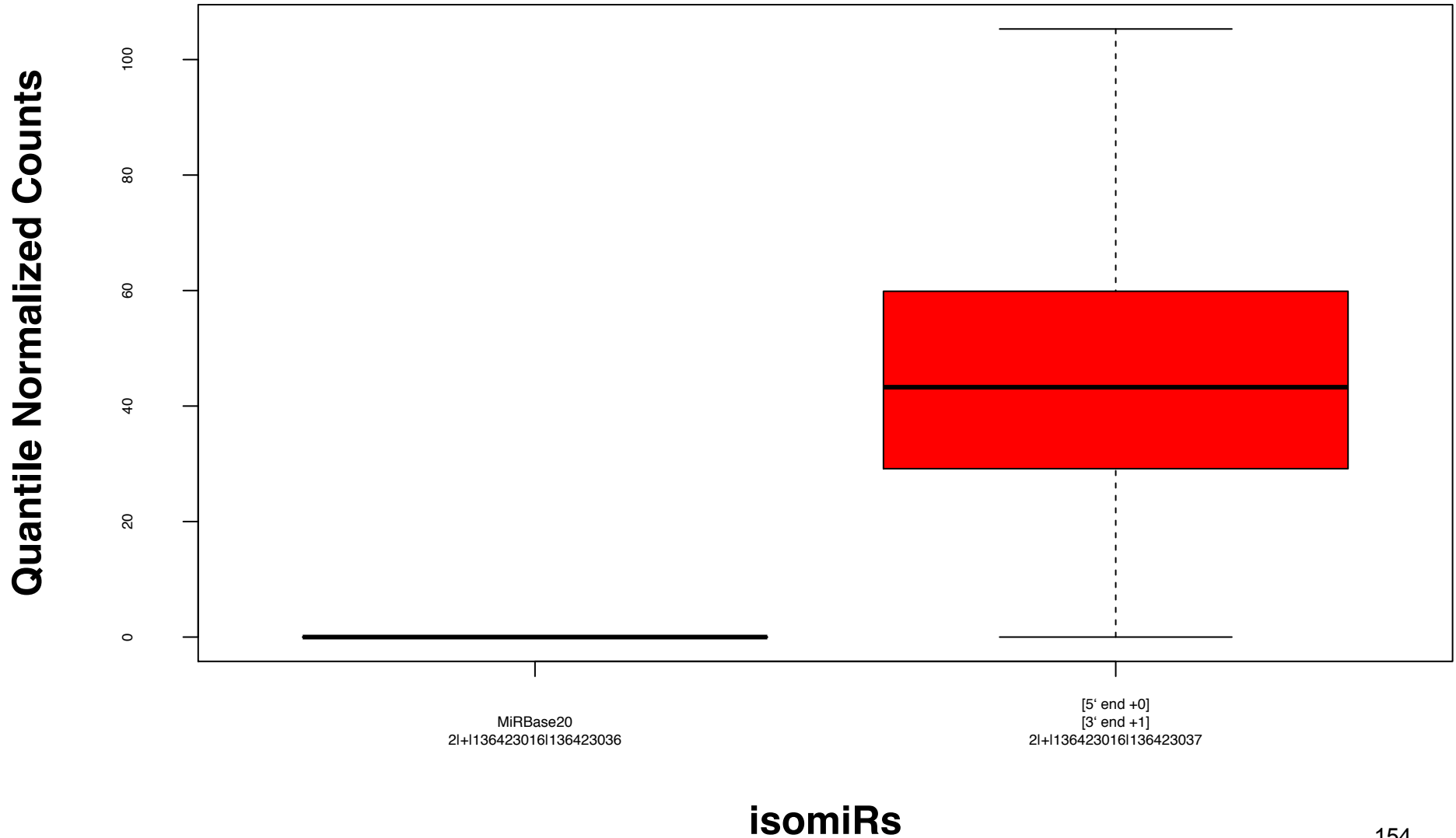


isomiRs

# MIMAT0004955=hsa-miR-374b-5p=MI0005566

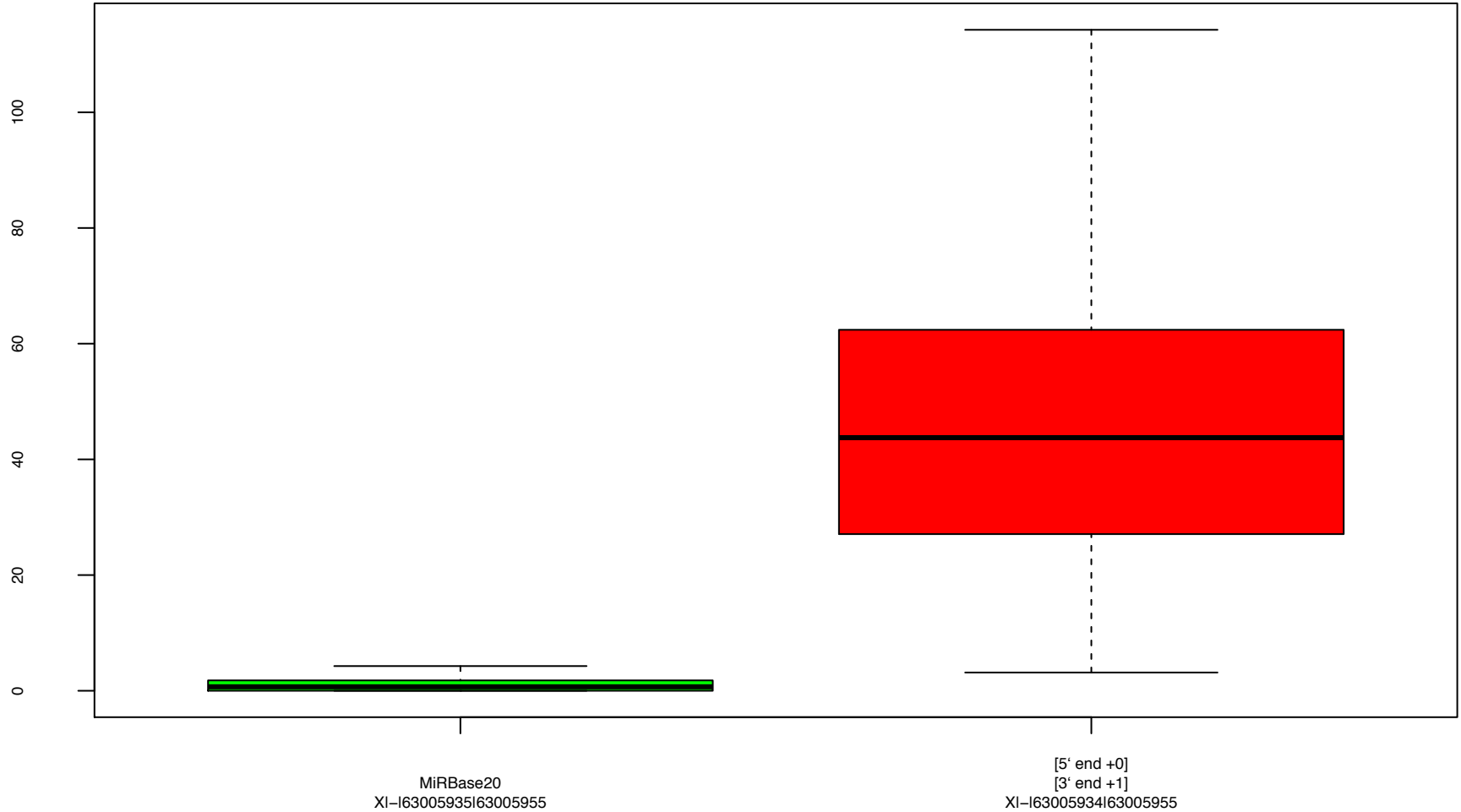


# MIMAT0000424=hsa-miR-128-3p=MI0000447



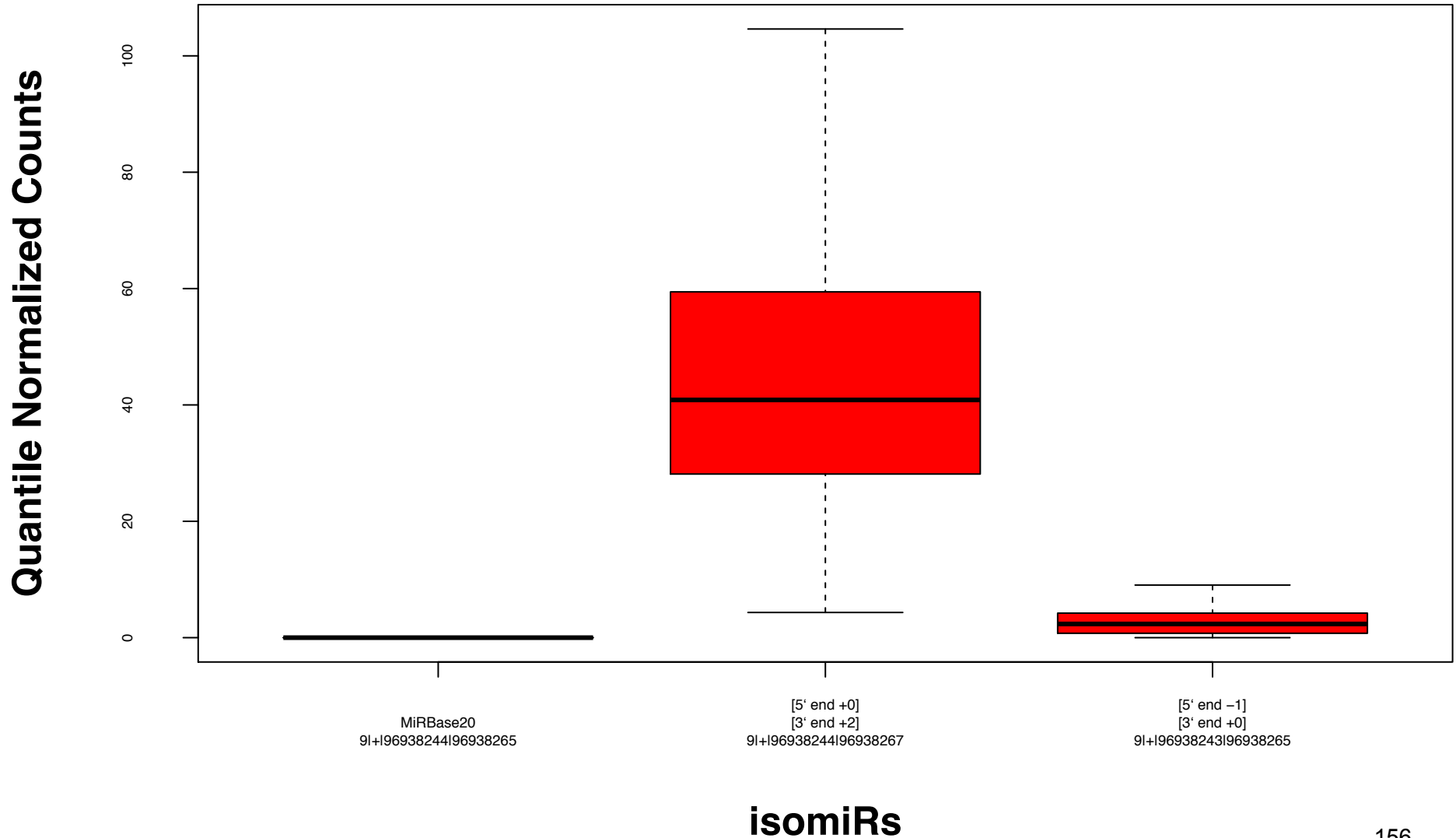
# MIMAT0006789=hsa-miR-1468-5p=MI0003782

Quantile Normalized Counts

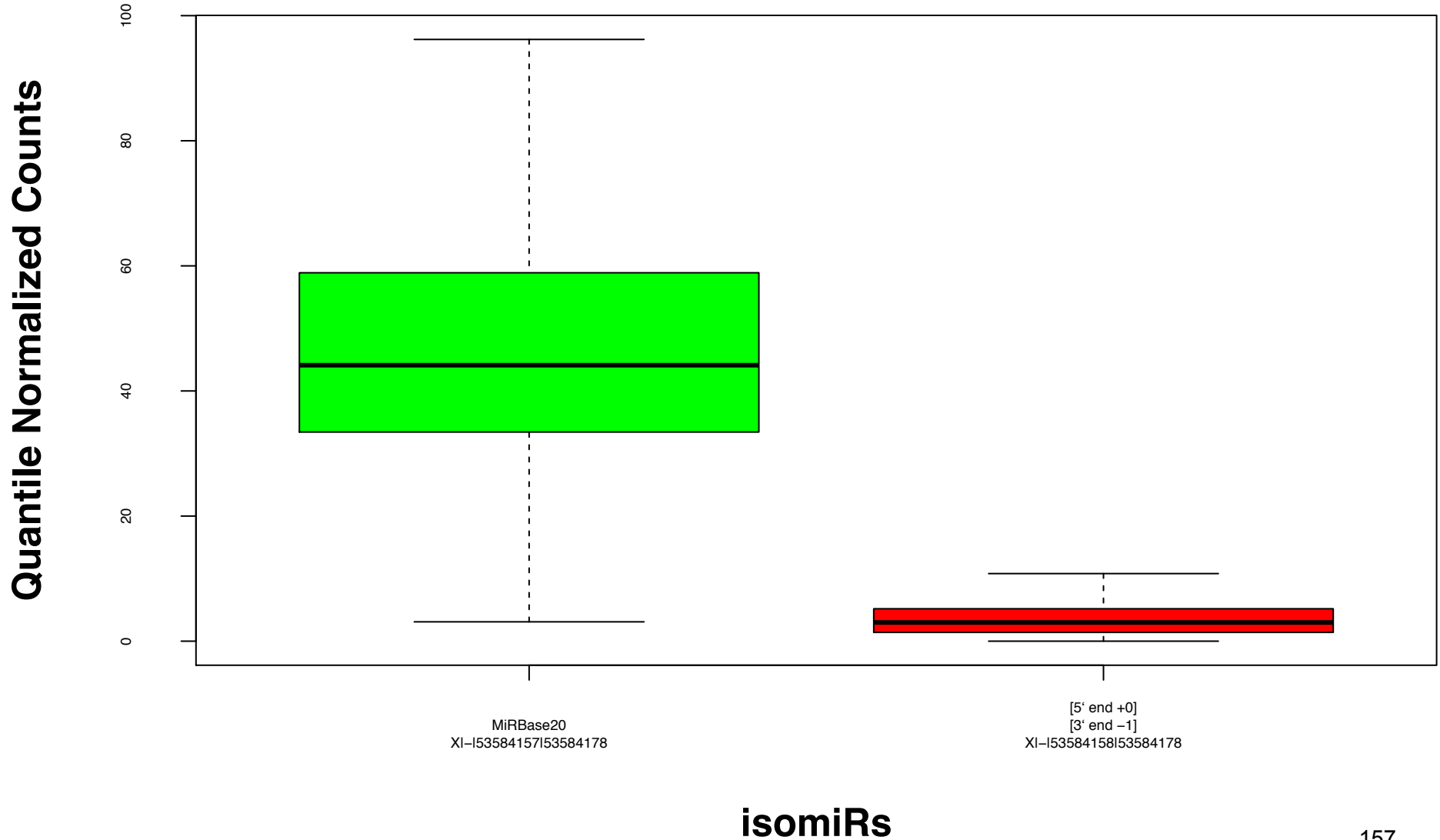


isomiRs

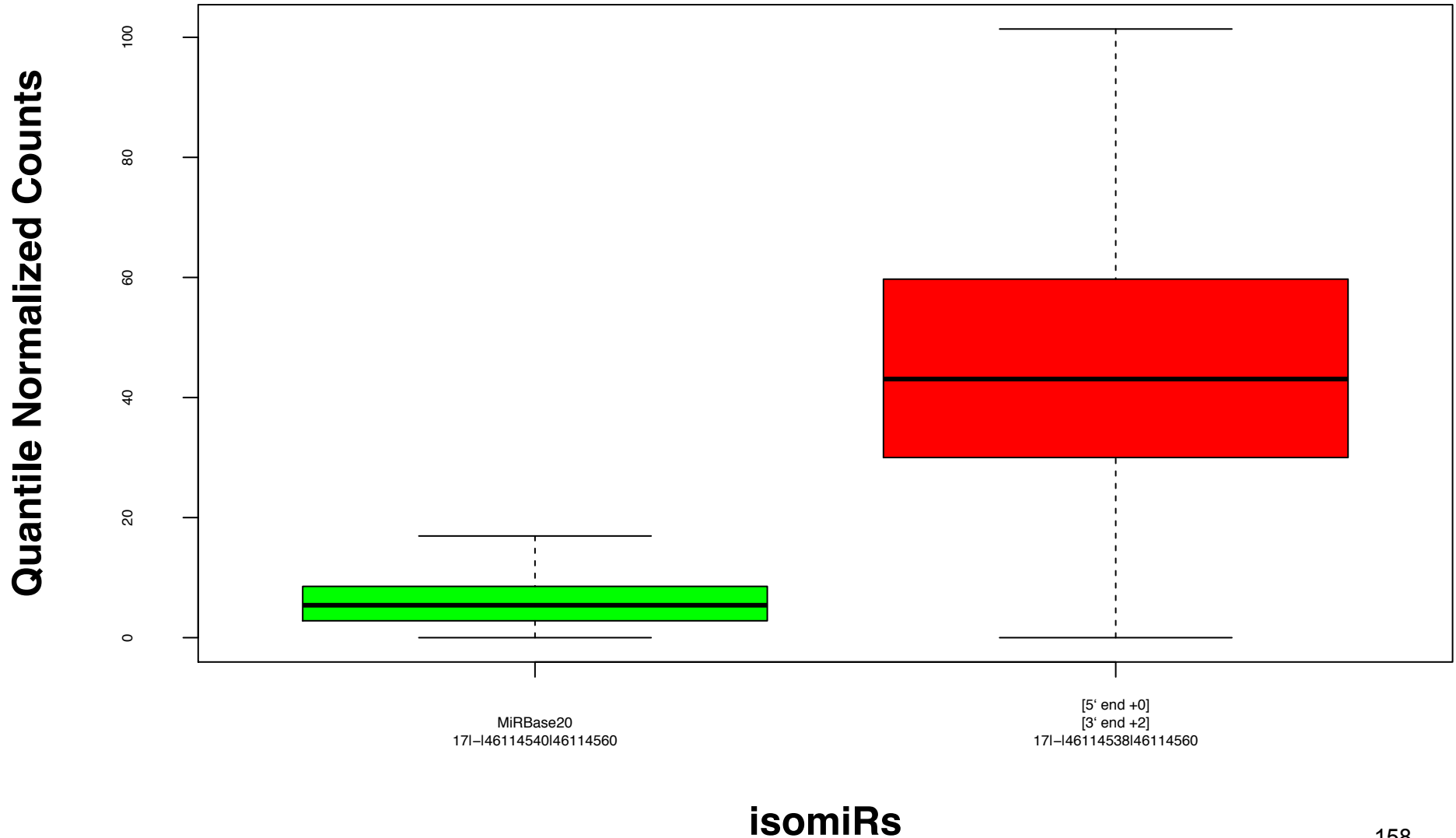
# MIMAT0000062\_2=hsa-let-7a-5p=MI0000060



# MIMAT0004487=hsa-let-7f-2-3p=MI0000068

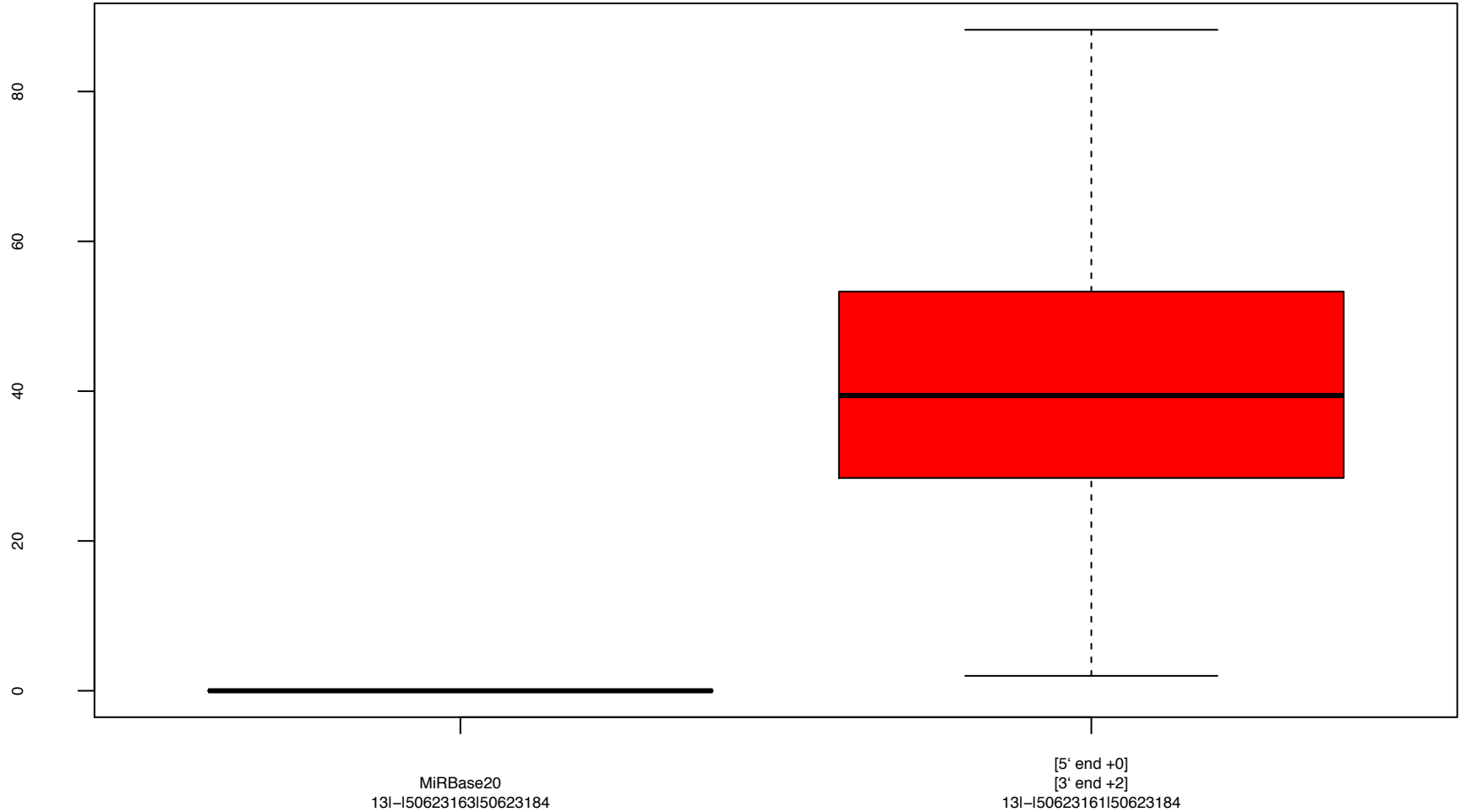


# MIMAT0000438=hsa-miR-152-3p=MI0000462



# MIMAT0000069=hsa-miR-16-5p=MI0000070

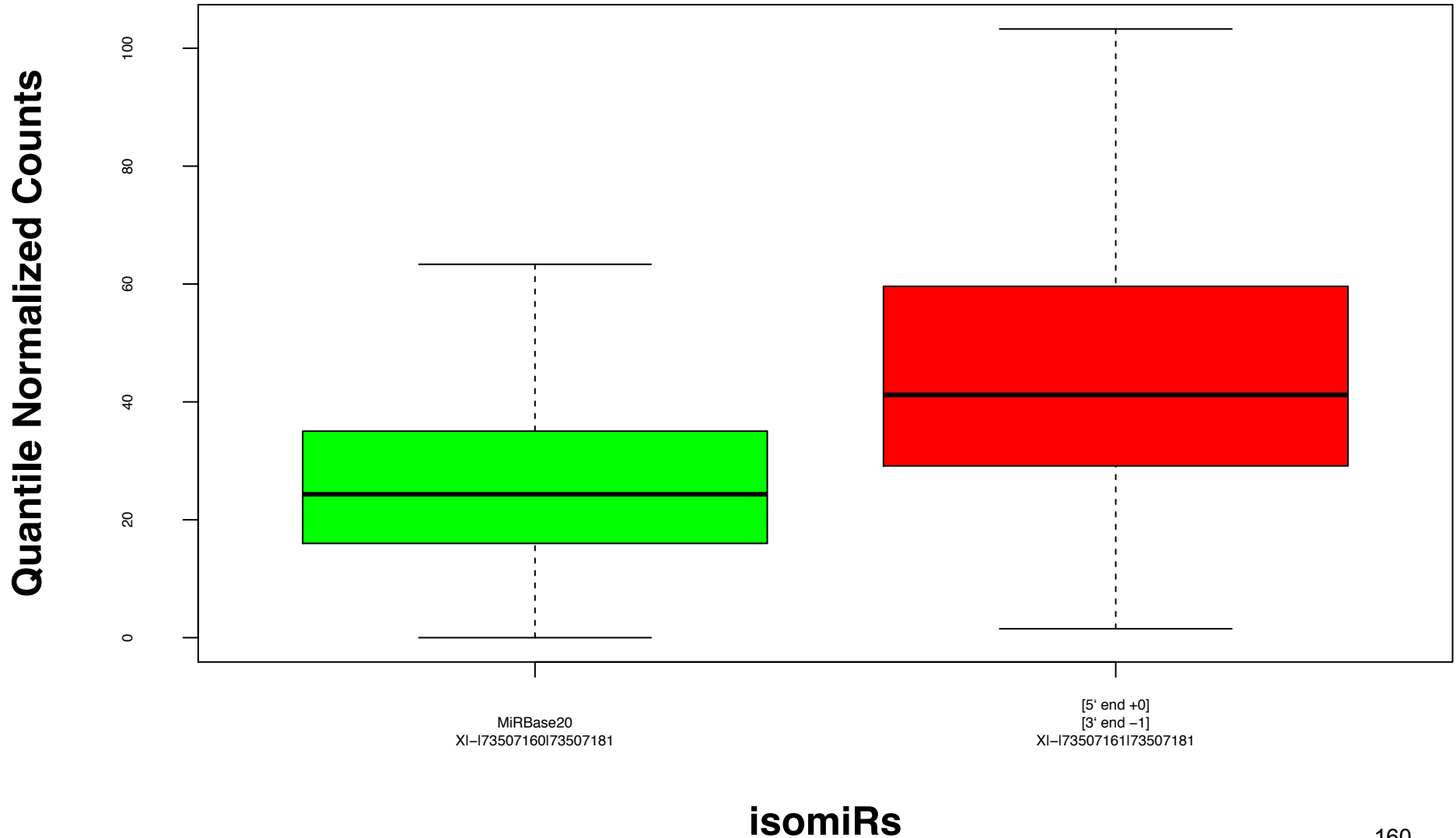
Quantile Normalized Counts



isomiRs

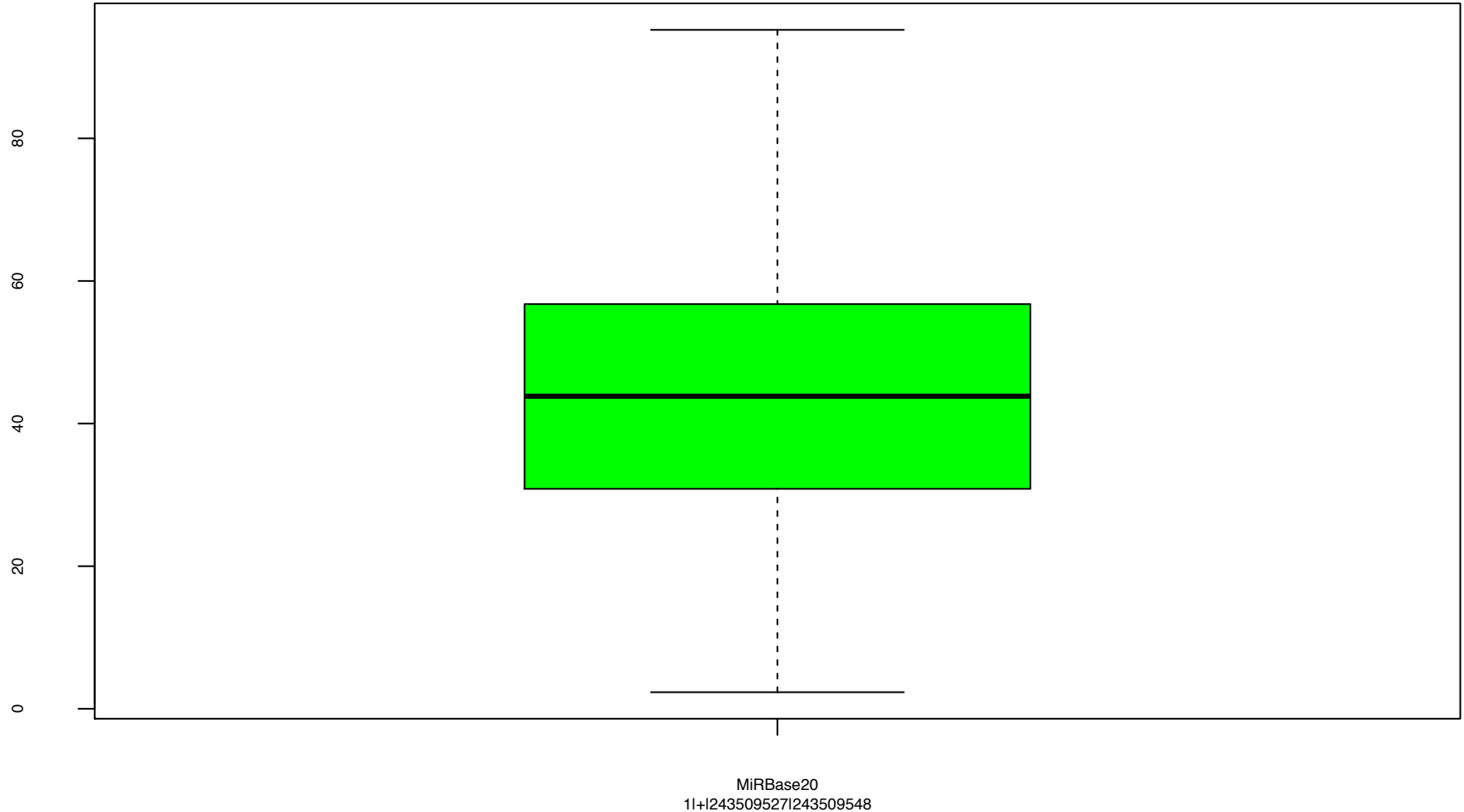


# MIMAT0000727=hsa-miR-374a-5p=MI0000782



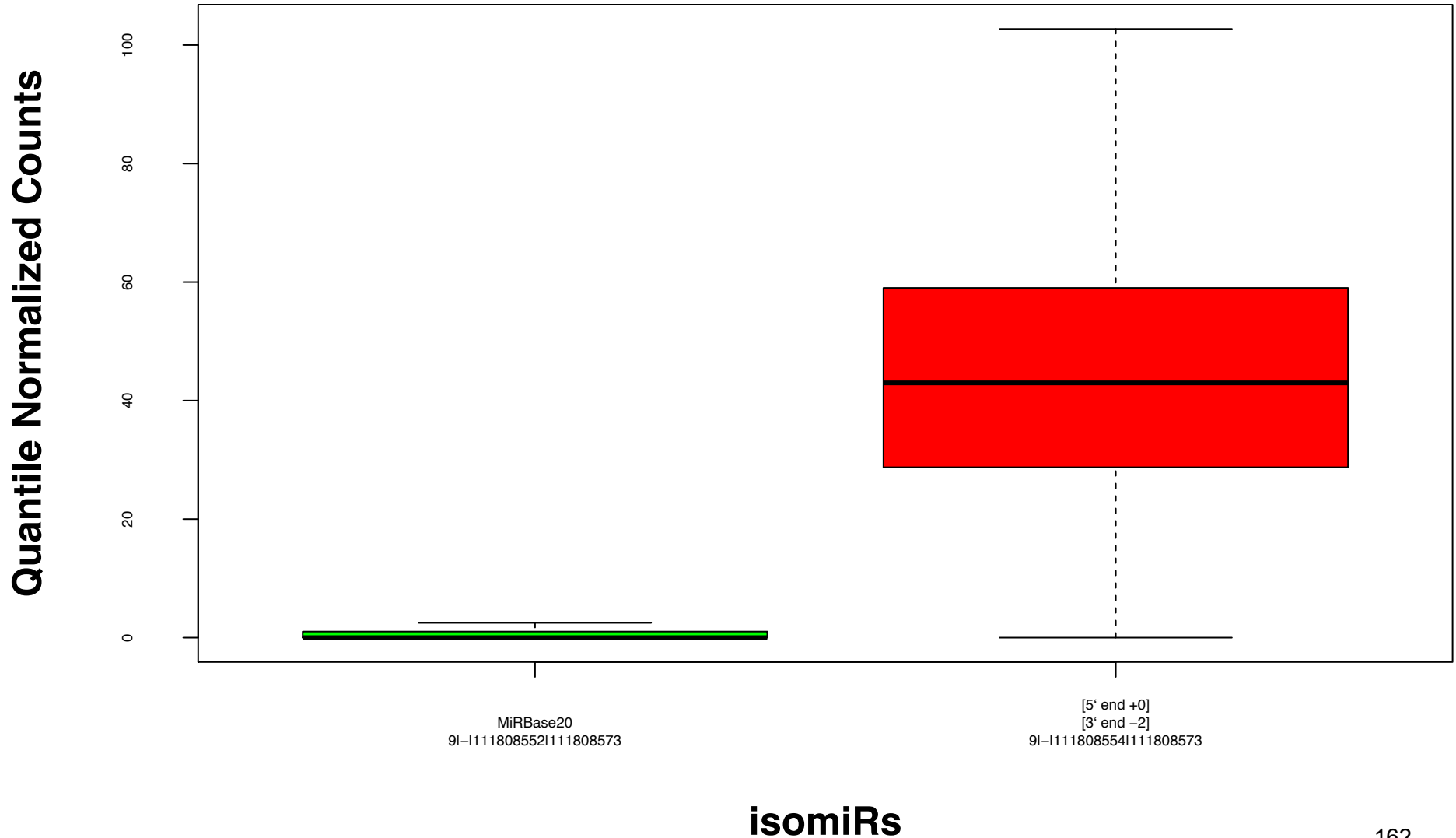
# MIMAT0019761=hsa-miR-4677-3p=MI0017308

Quantile Normalized Counts

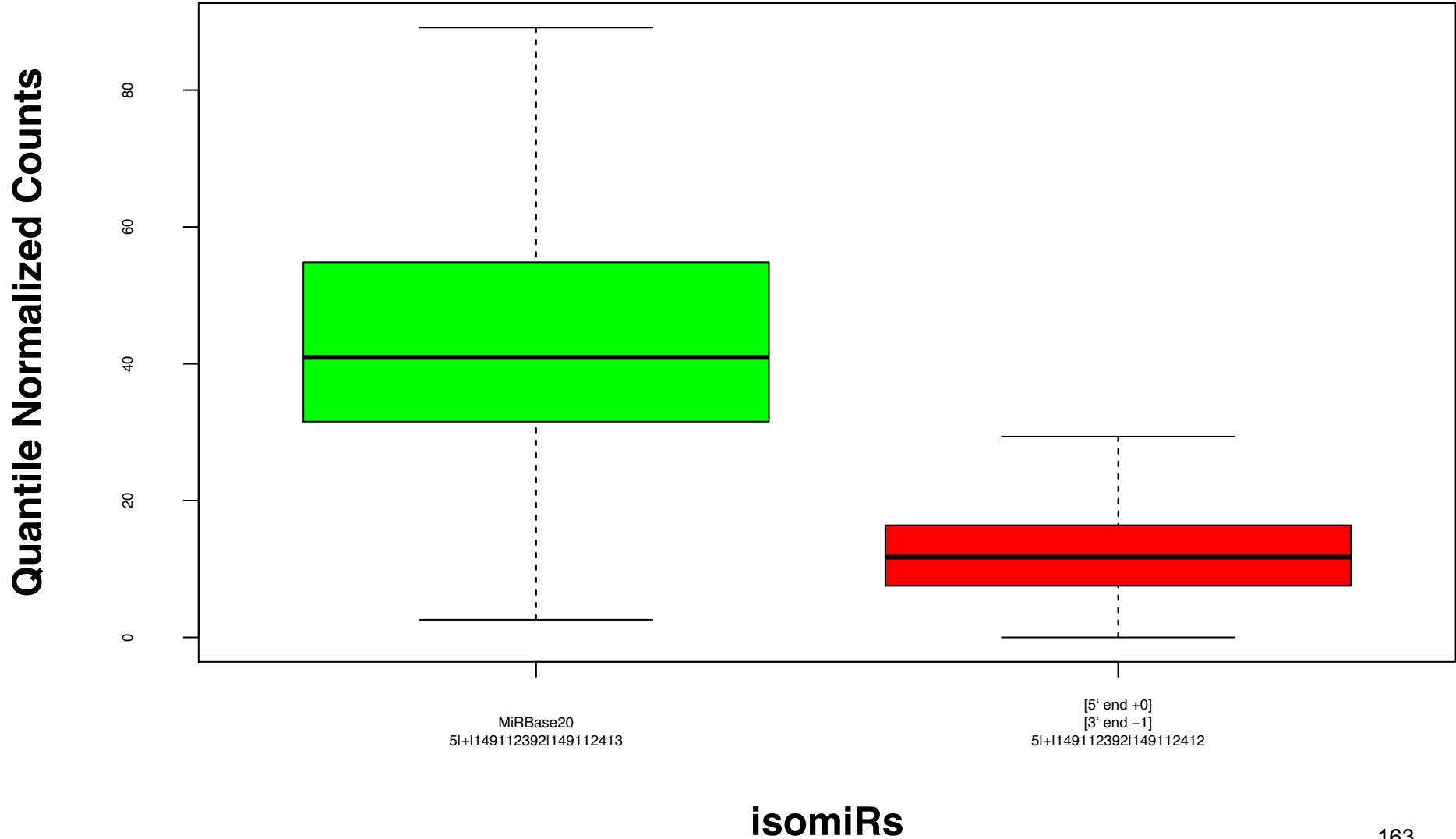


isomiRs

# MIMAT0000090=hsa-miR-32-5p=MI0000090

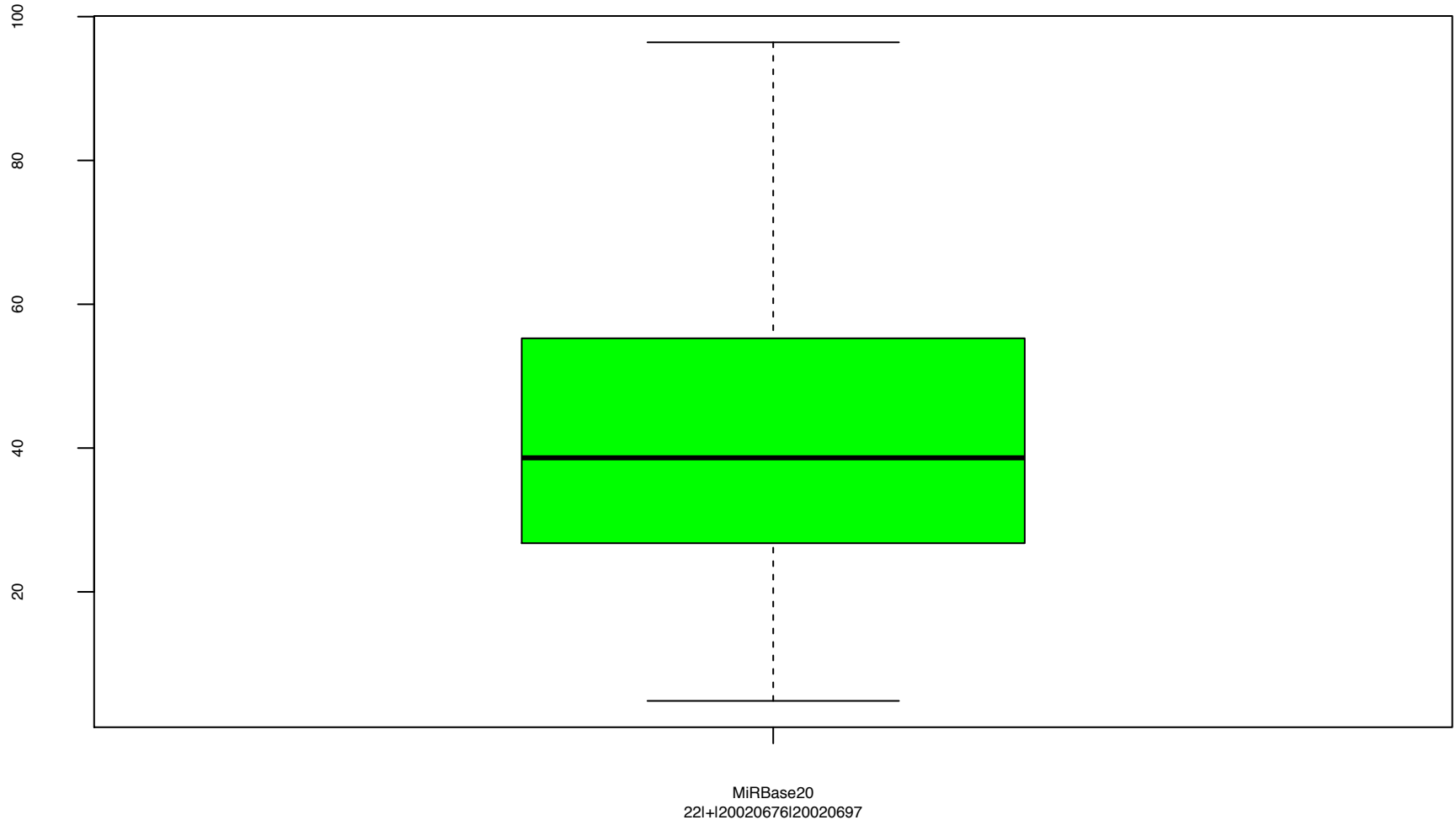


# MIMAT0000731=hsa-miR-378a-5p=MI0000786



# MIMAT0000455=hsa-miR-185-5p=MI0000482

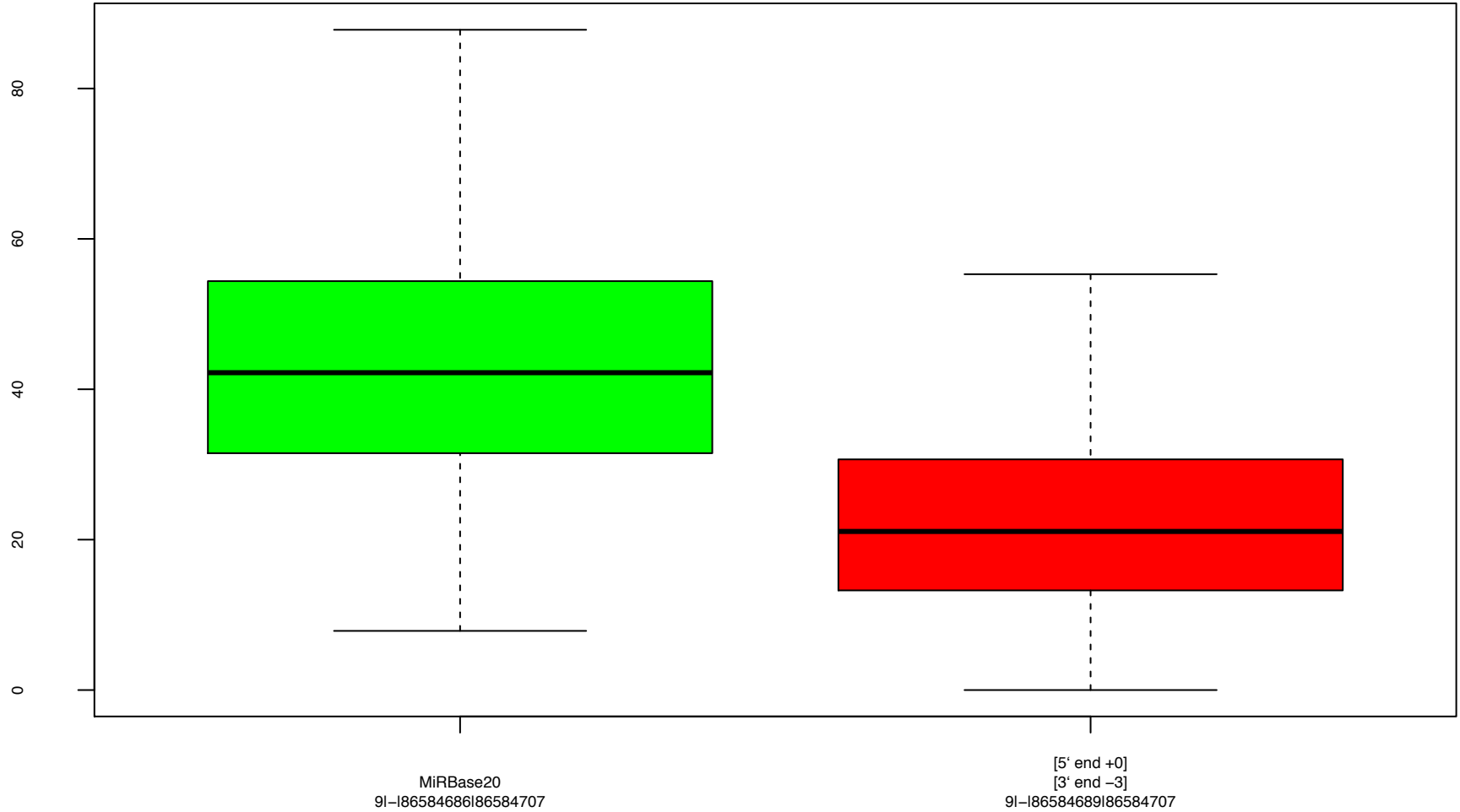
Quantile Normalized Counts



isomiRs

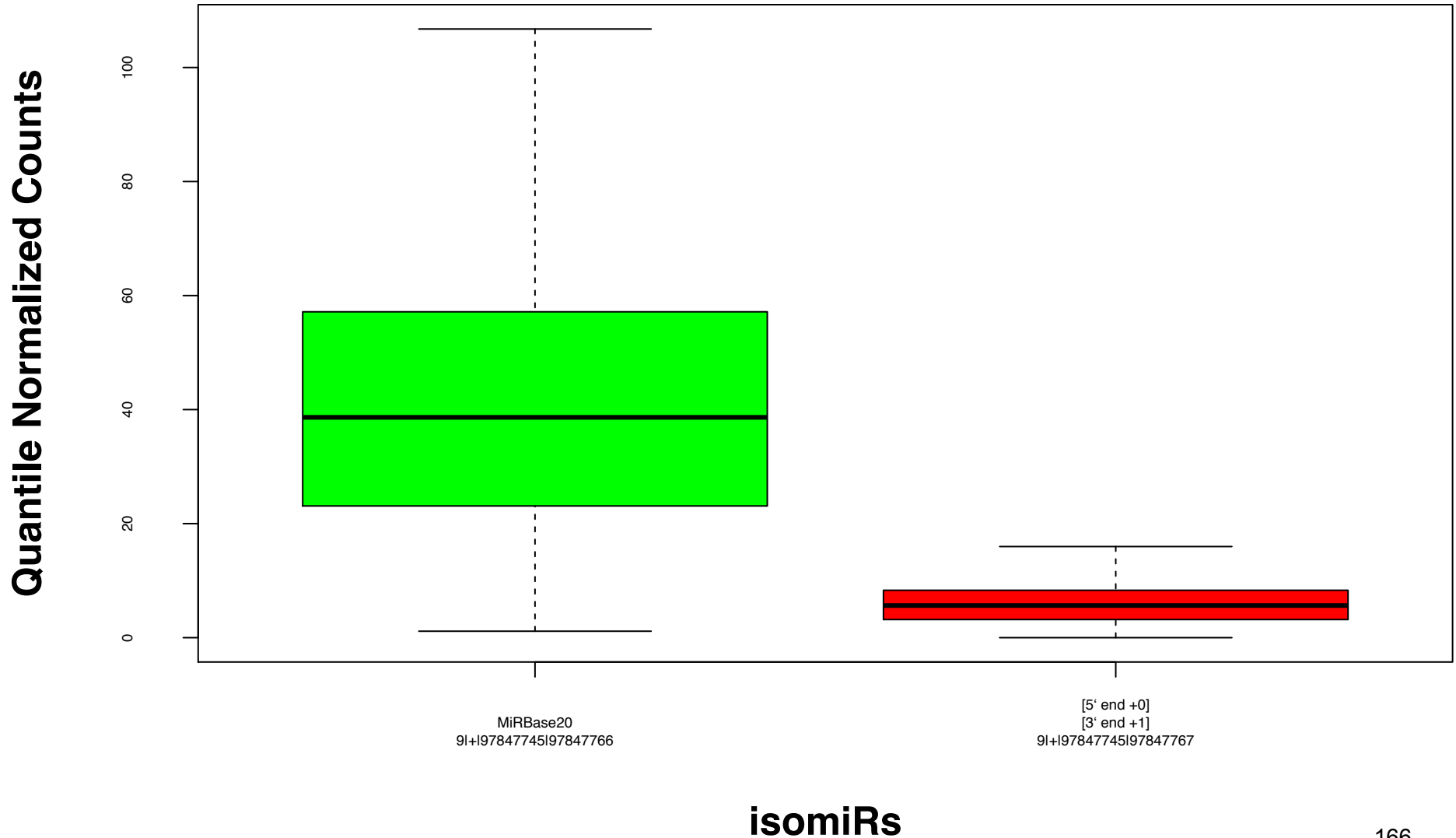
# MIMAT0004553=hsa-miR-7-1-3p=MI0000263

Quantile Normalized Counts

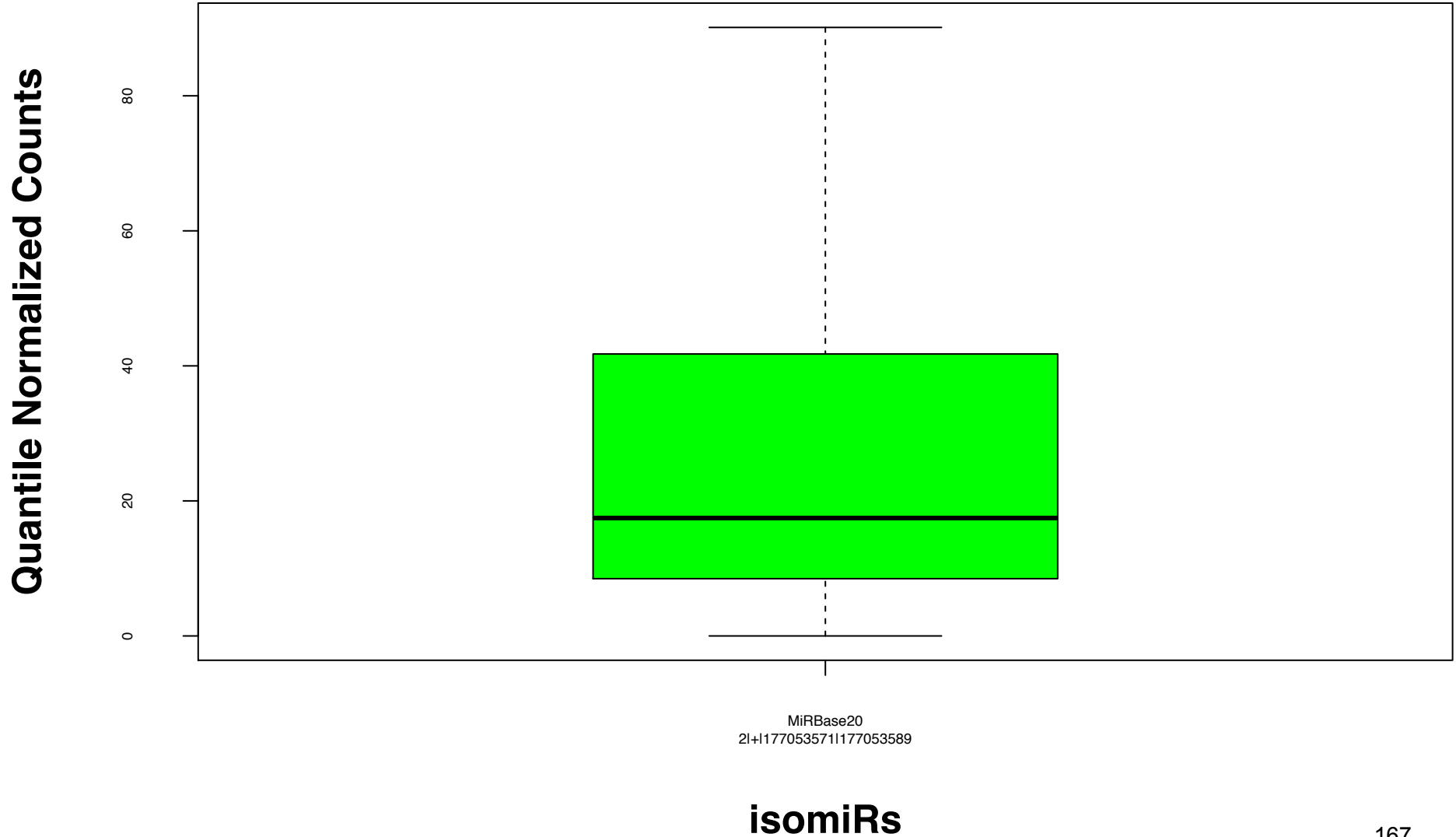


isomiRs

# MIMAT0004588=hsa-miR-27b-5p=MI0000440

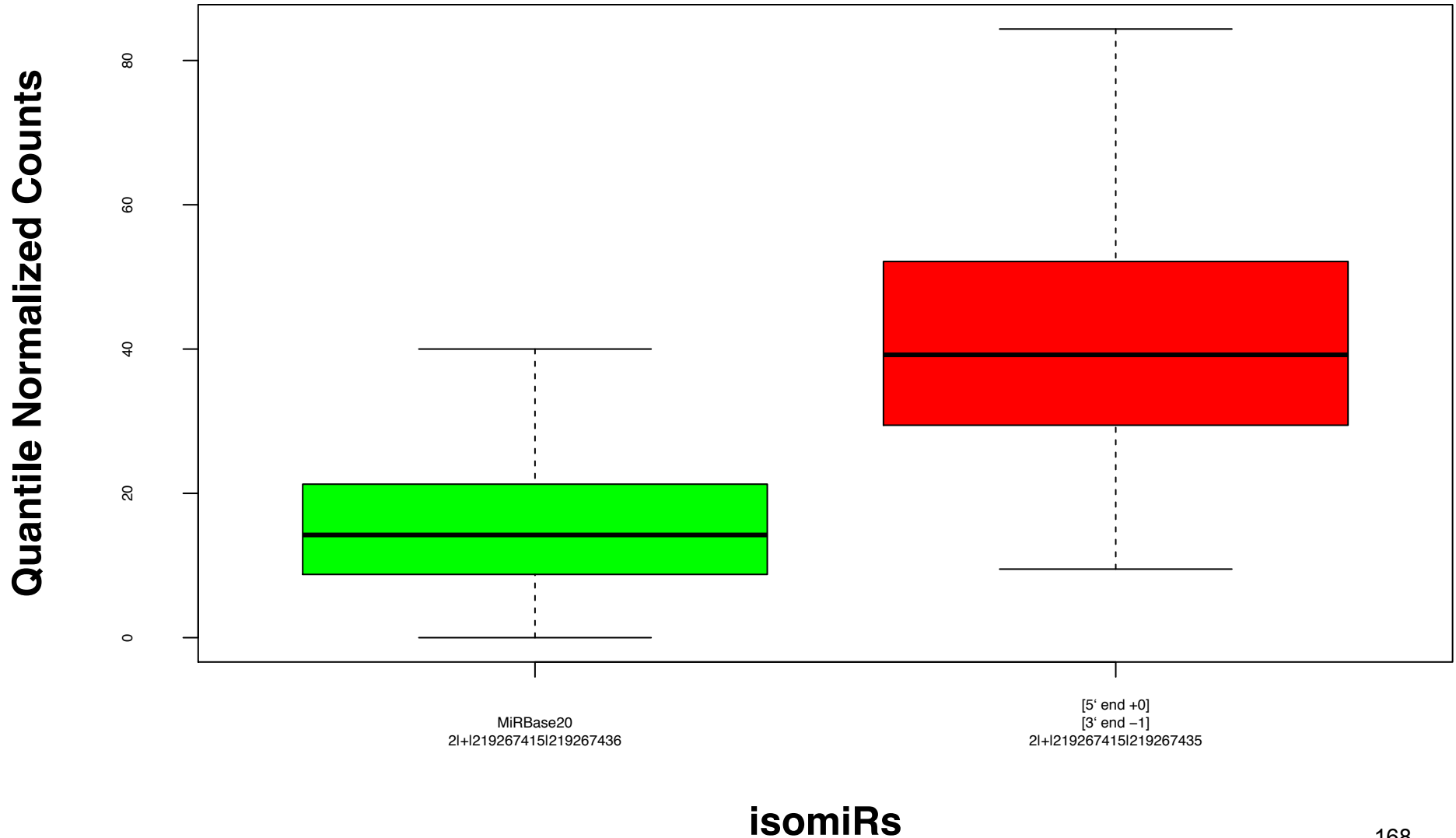


# MIMAT0030019=hsa-miR-7704=MI0025240



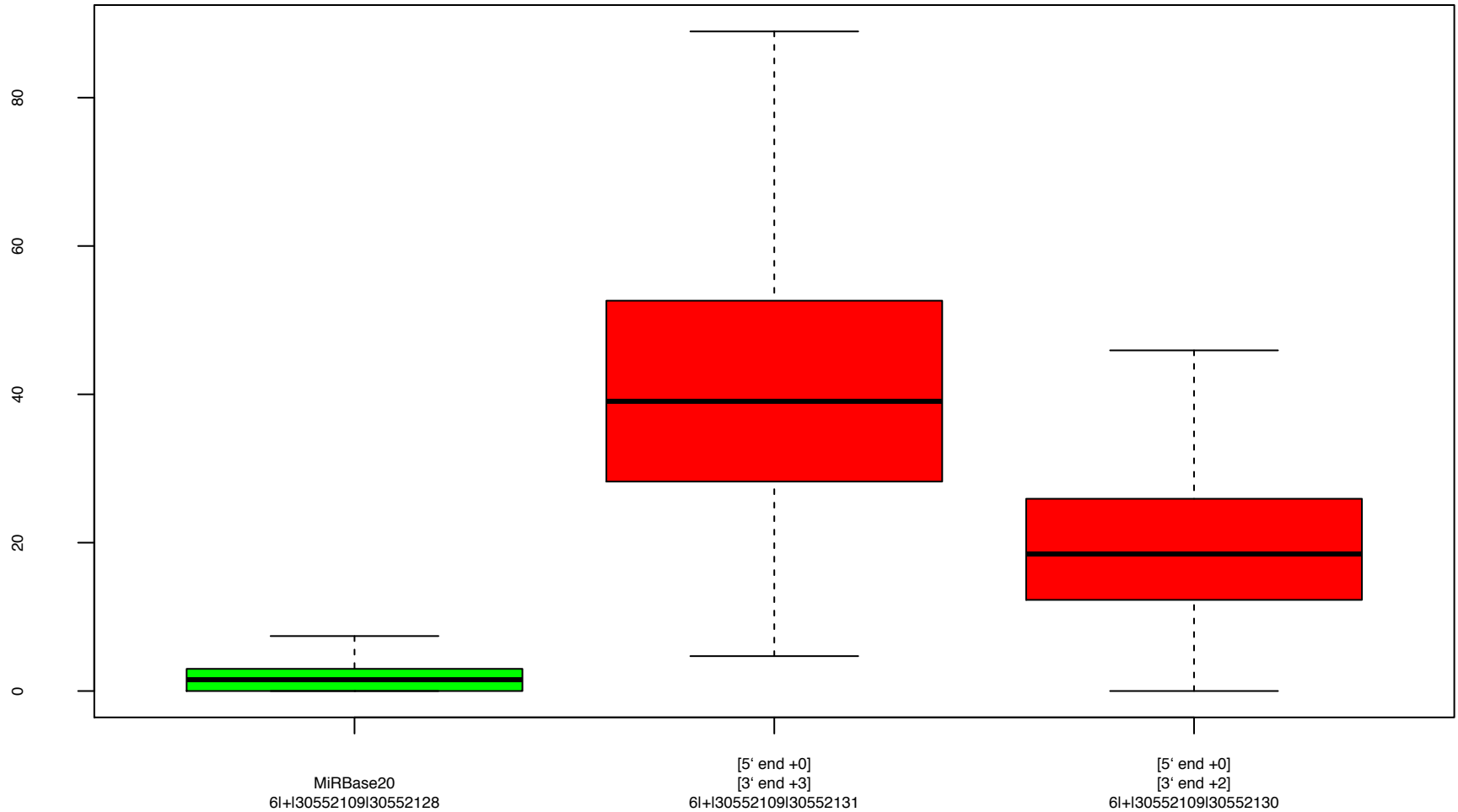


# MIMAT0004500=hsa-miR-26b-3p=MI0000084



# MIMAT0004949=hsa-miR-877-5p=MI0005561

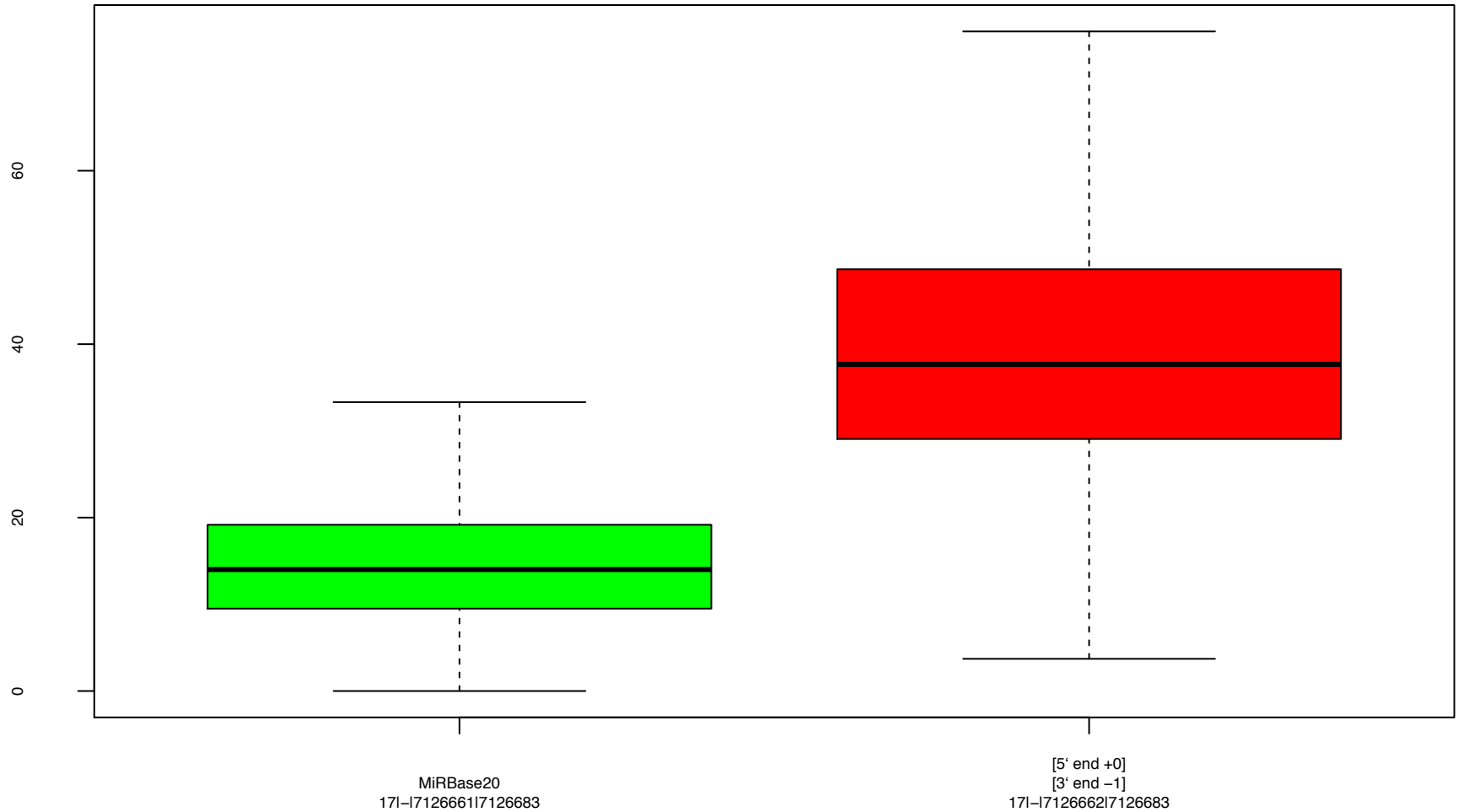
Quantile Normalized Counts



isomiRs

# MIMAT0000761=hsa-miR-324-5p=MI0000813

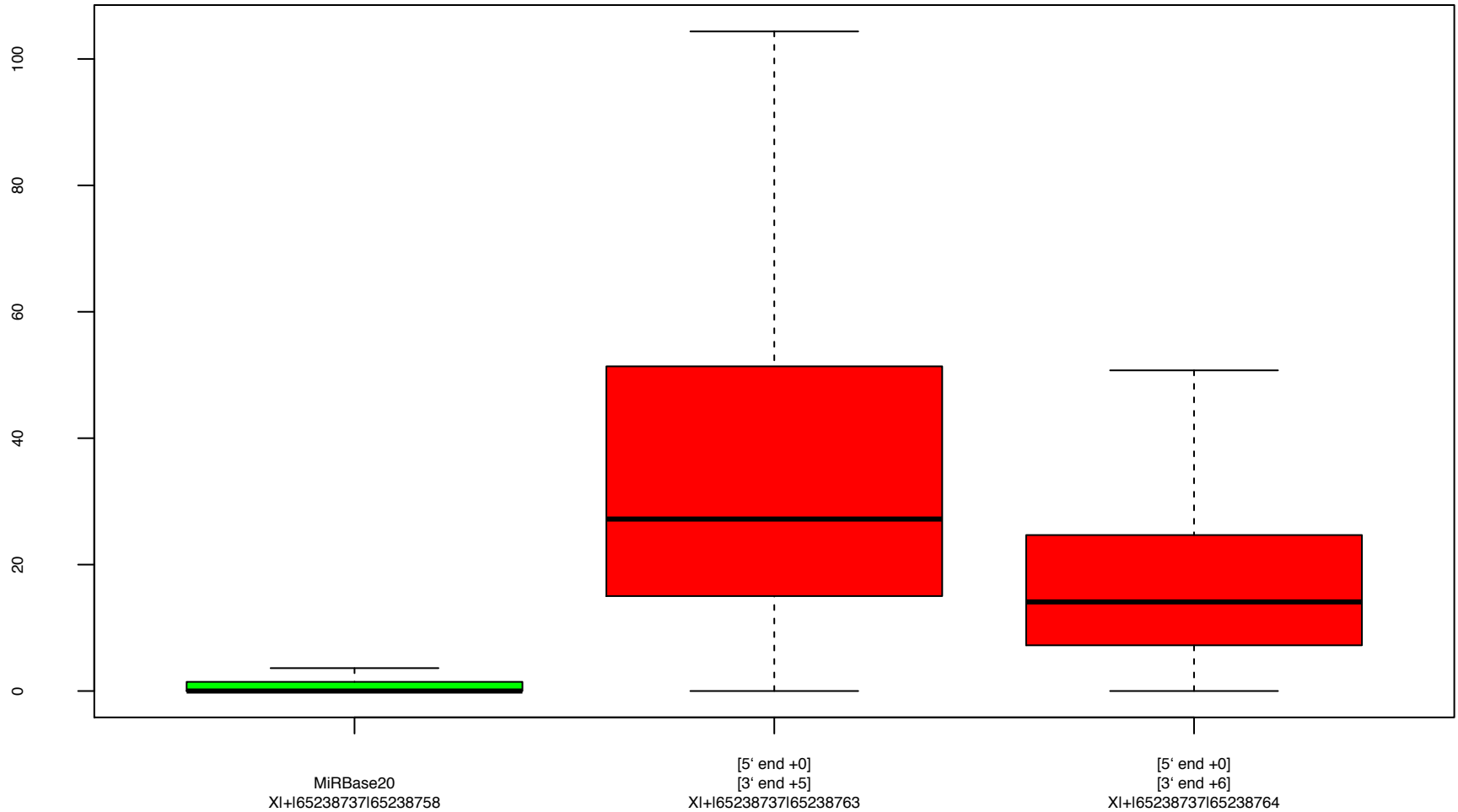
Quantile Normalized Counts



isomiRs

# MIMAT0004570=hsa-miR-223-5p=MI0000300

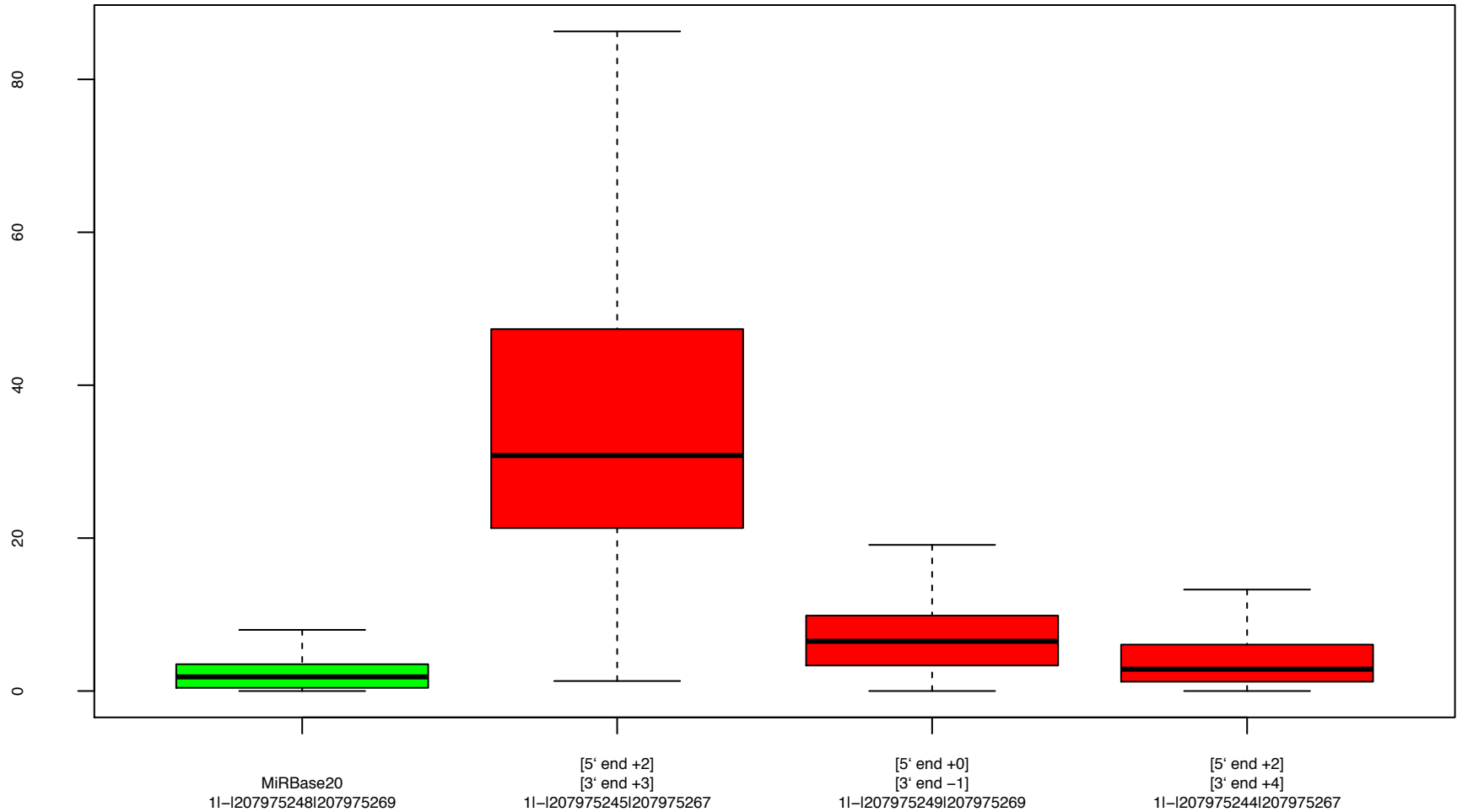
Quantile Normalized Counts



isomiRs

# MIMAT0004673=hsa-miR-29c-5p=MI0000735

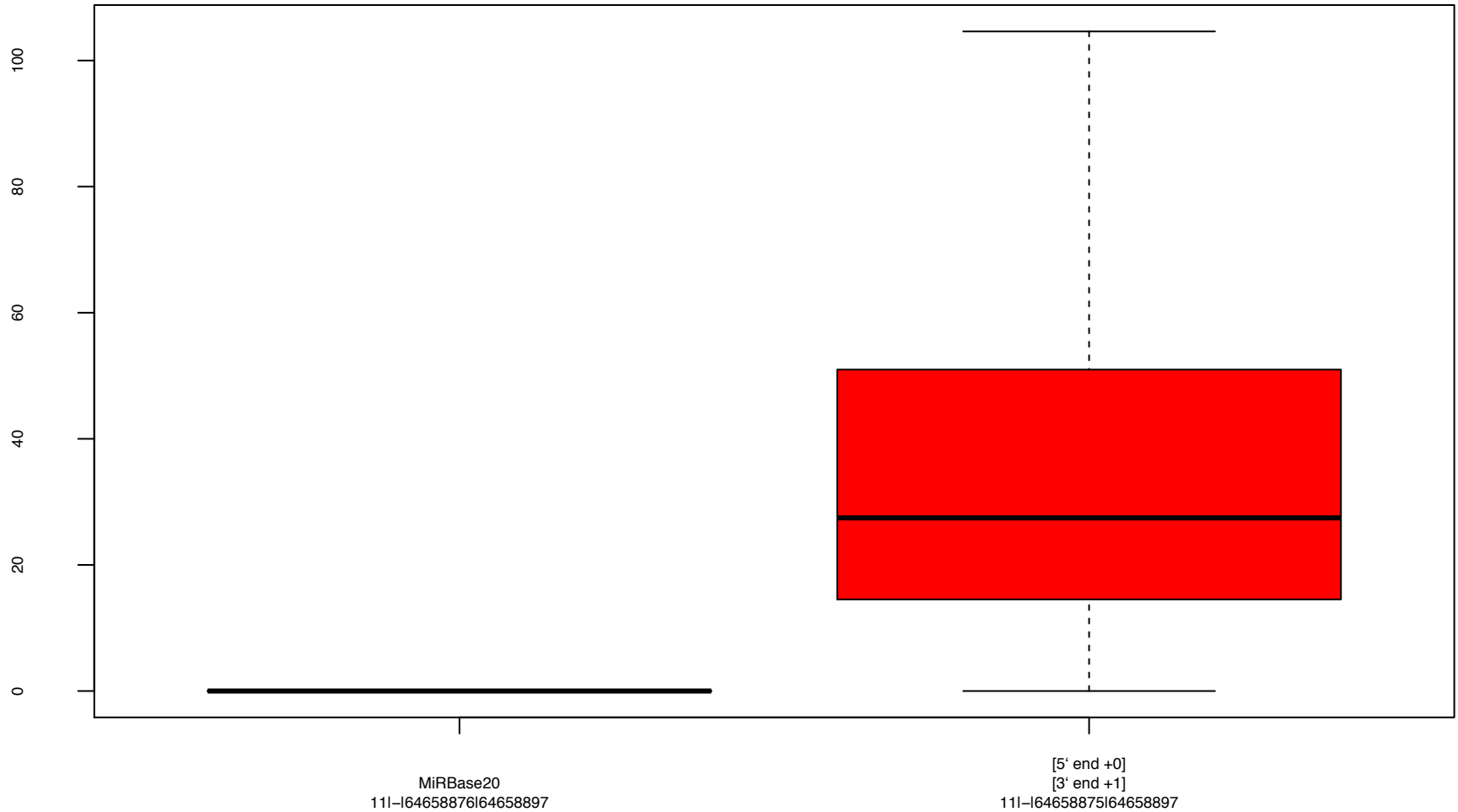
Quantile Normalized Counts



isomiRs

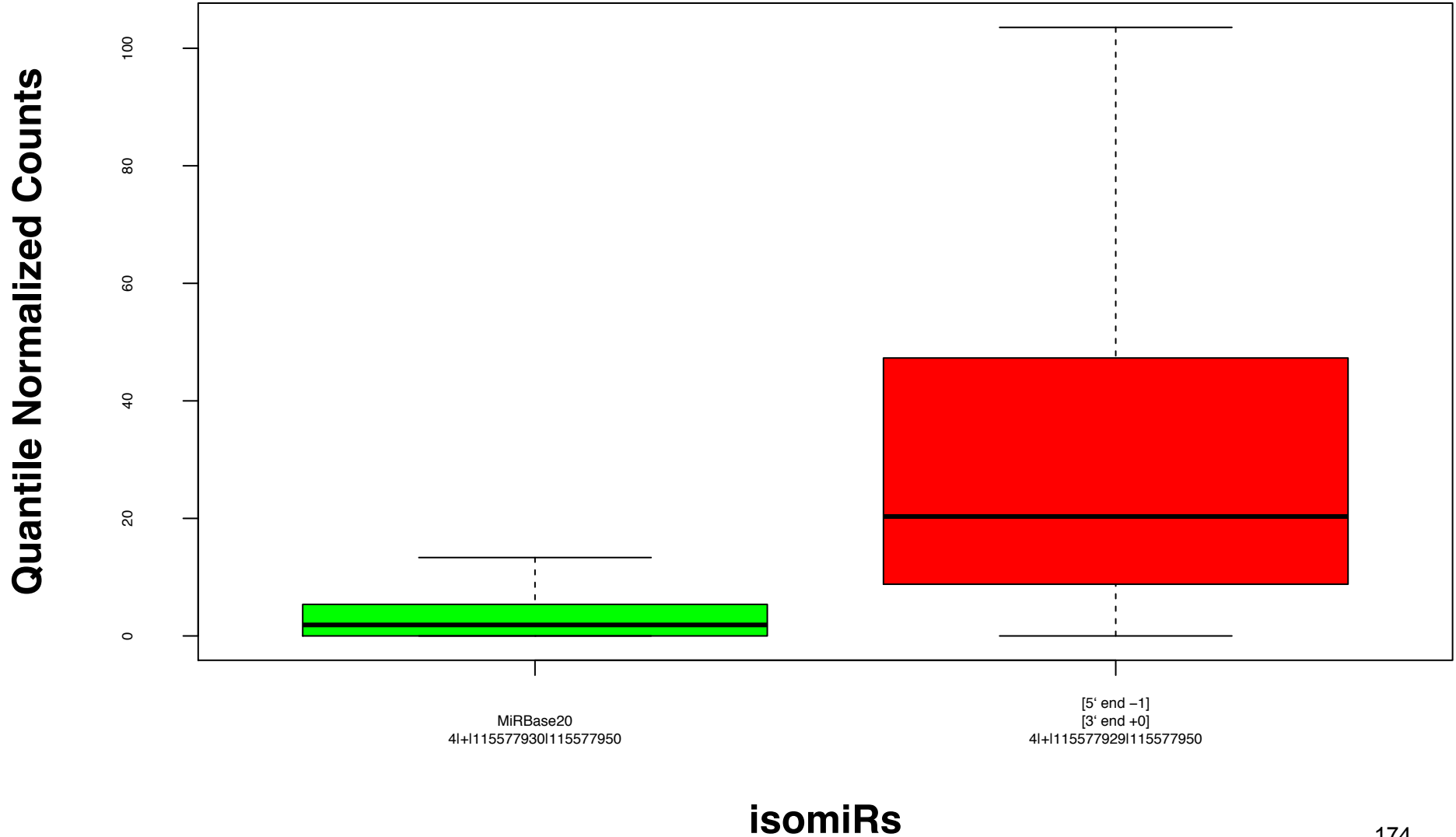
# MIMAT0000460\_1=hsa-miR-194-5p=MI0000732

Quantile Normalized Counts



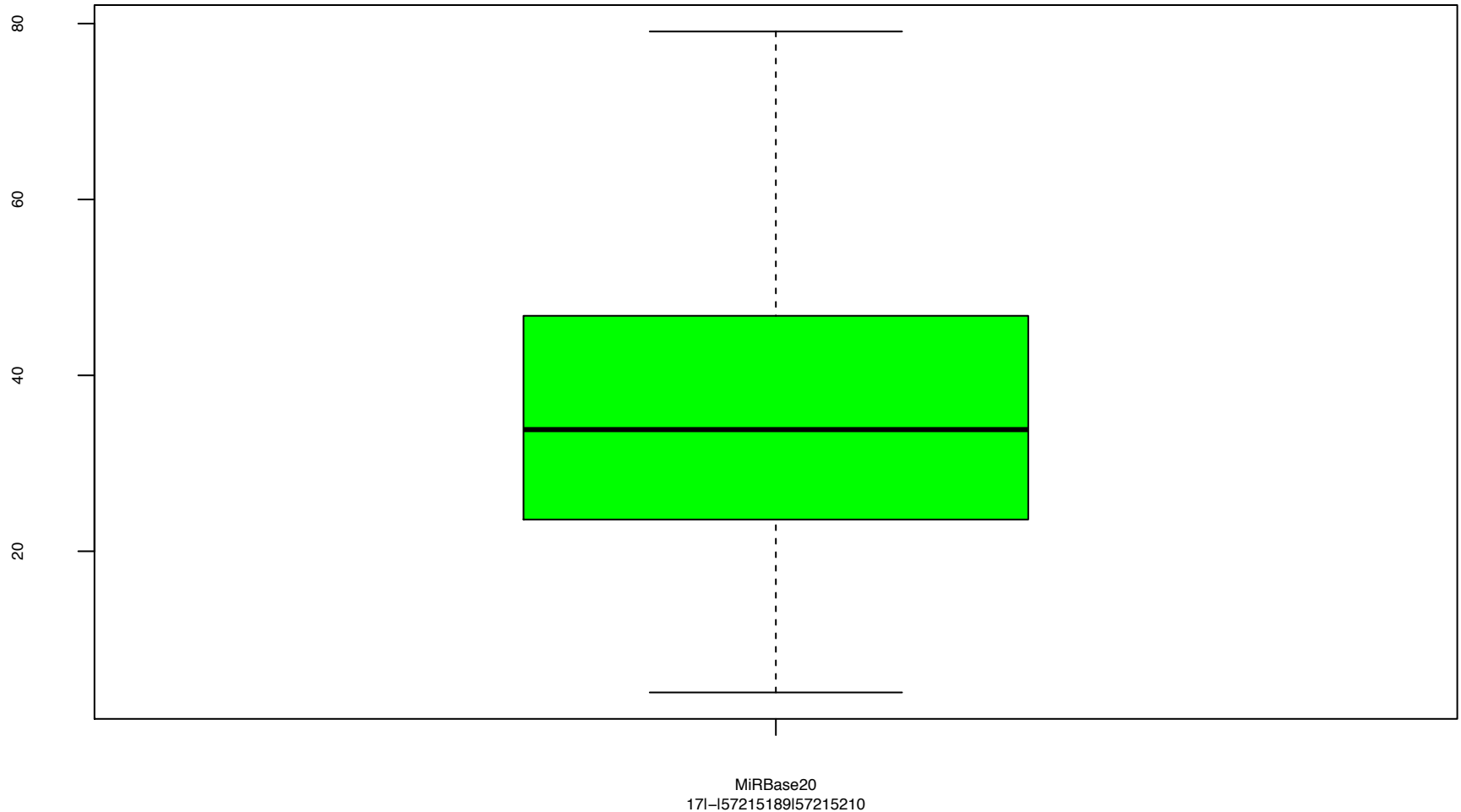
isomiRs

# MIMAT0003242=hsa-miR-577=MI0003584



# MIMAT0003884=hsa-miR-454-5p=MI0003820

Quantile Normalized Counts



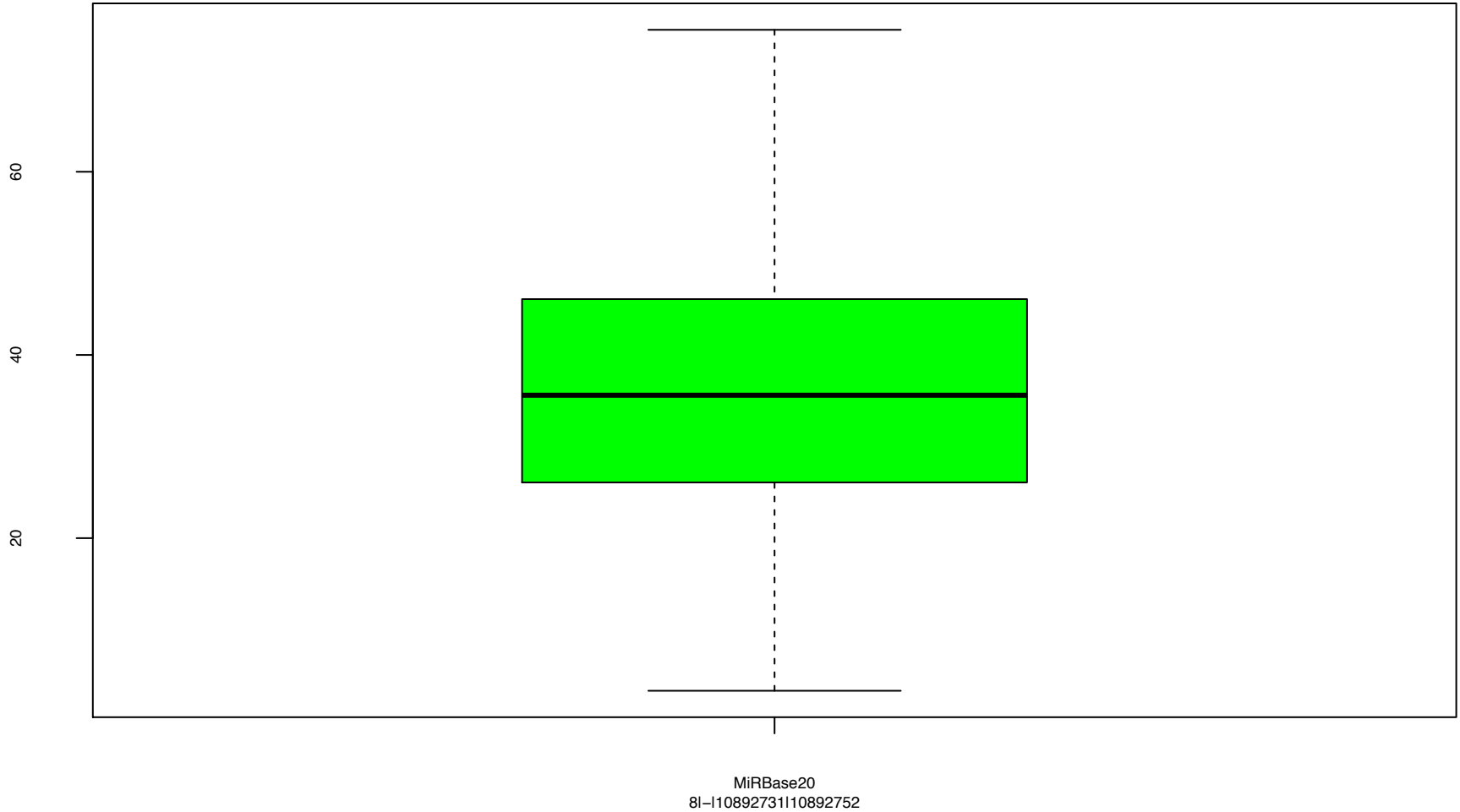
MiRBase20  
171-157215189157215210

isomiRs



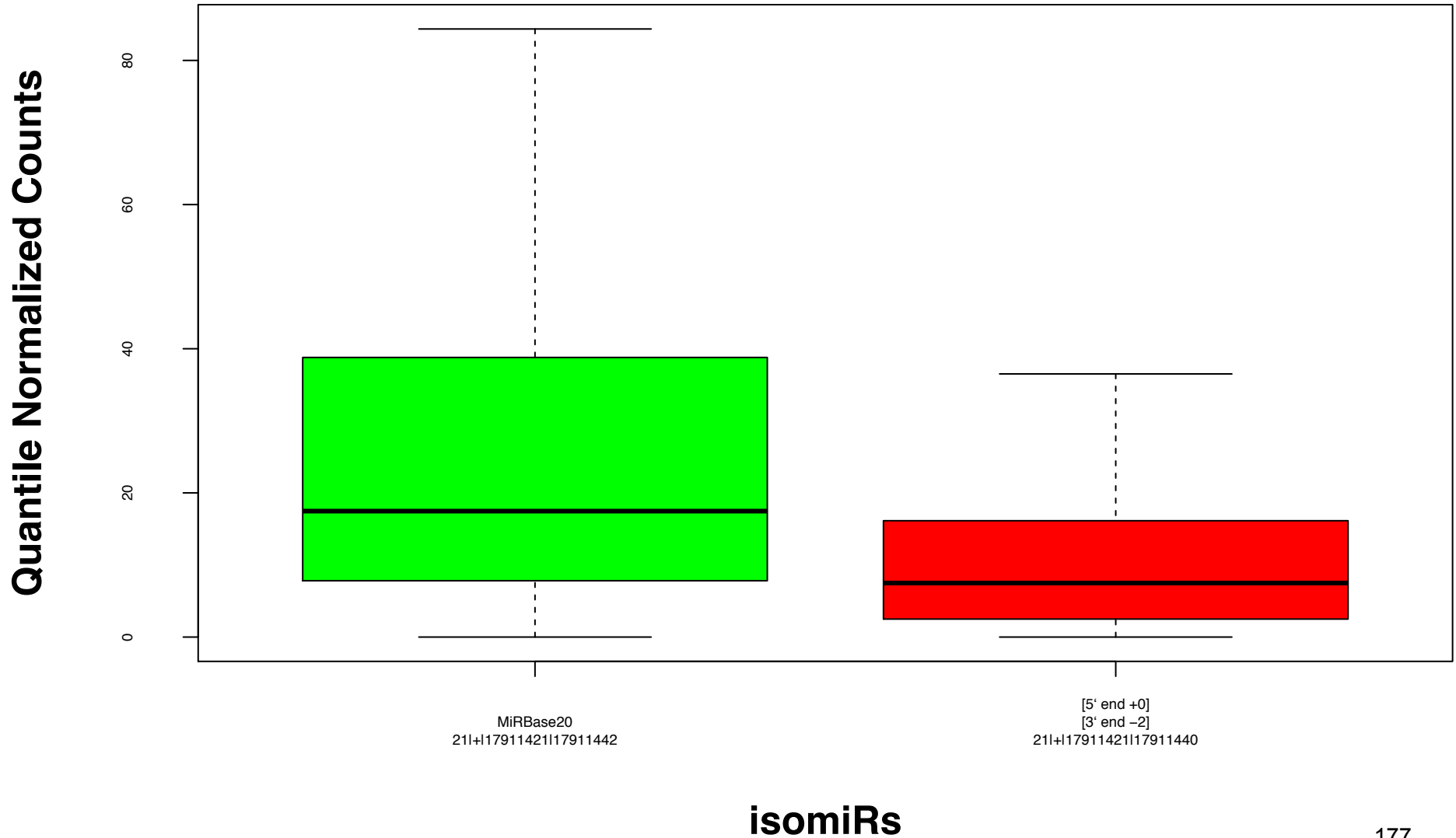
# MIMAT0003266=hsa-miR-598-3p=MI0003610

Quantile Normalized Counts



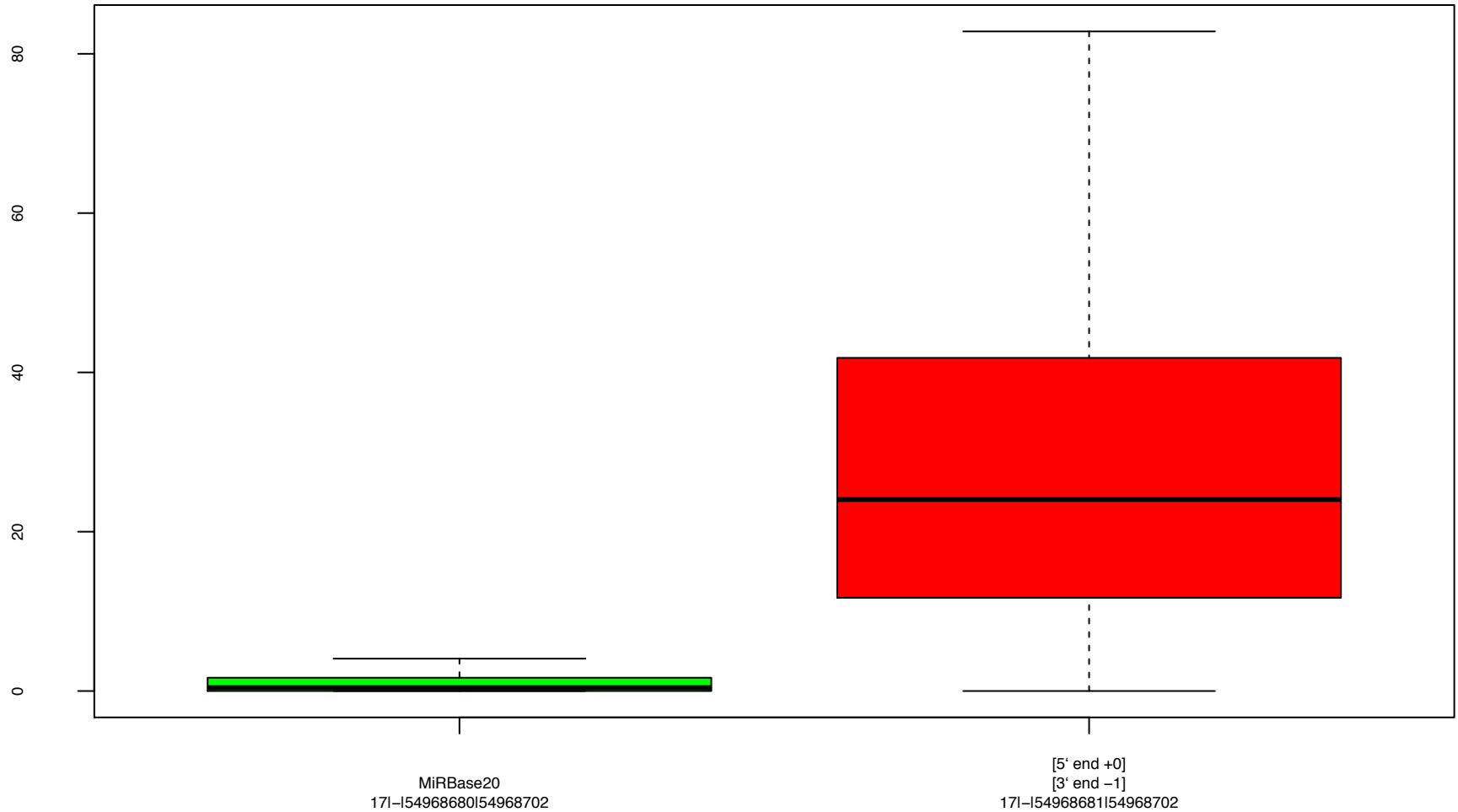
isomiRs

# MIMAT0000097=hsa-miR-99a-5p=MI0000101



# MIMAT0017992=hsa-miR-3614-5p=MI0016004

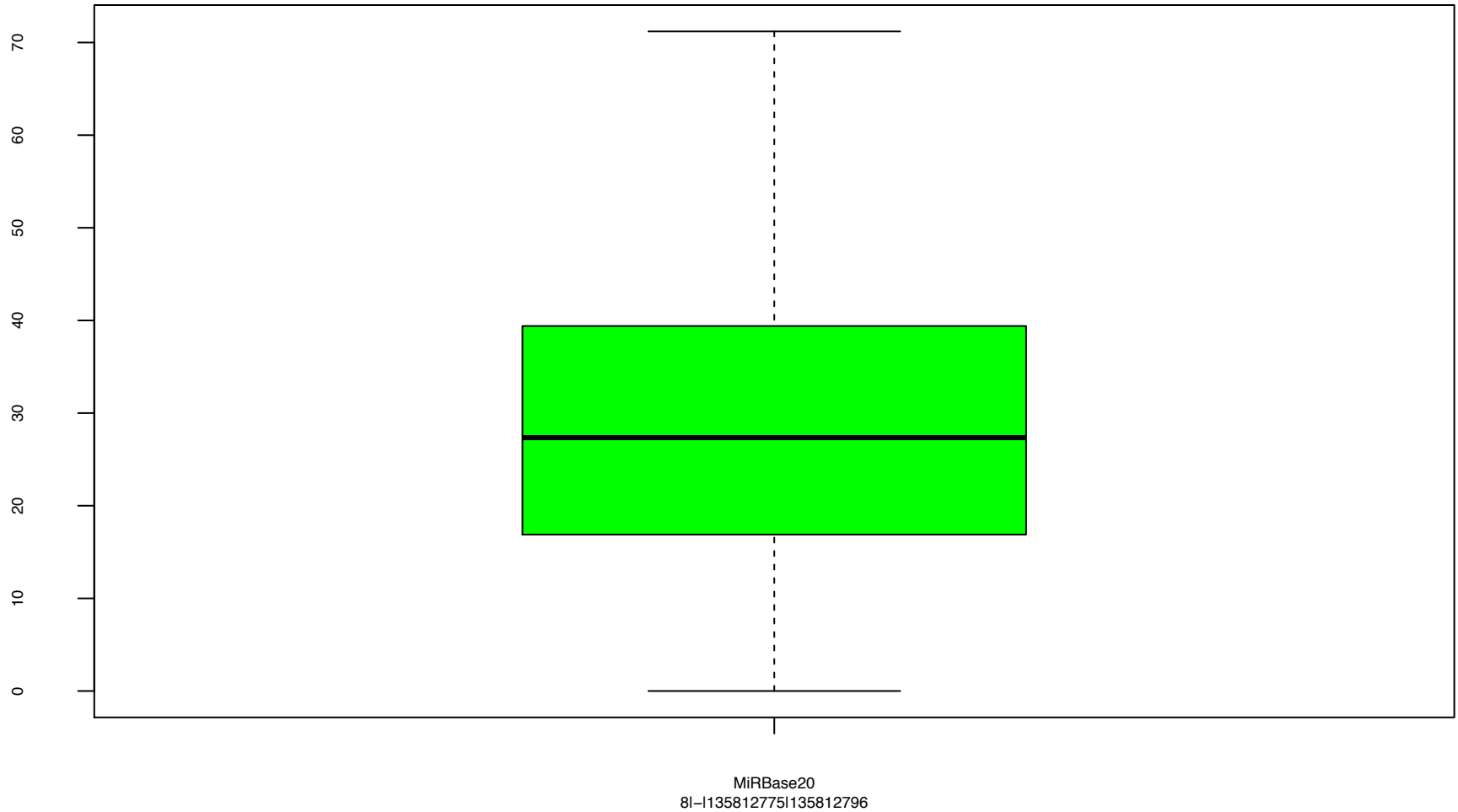
Quantile Normalized Counts



isomiRs

# MIMAT0004589=hsa-miR-30b-3p=MI0000441

Quantile Normalized Counts

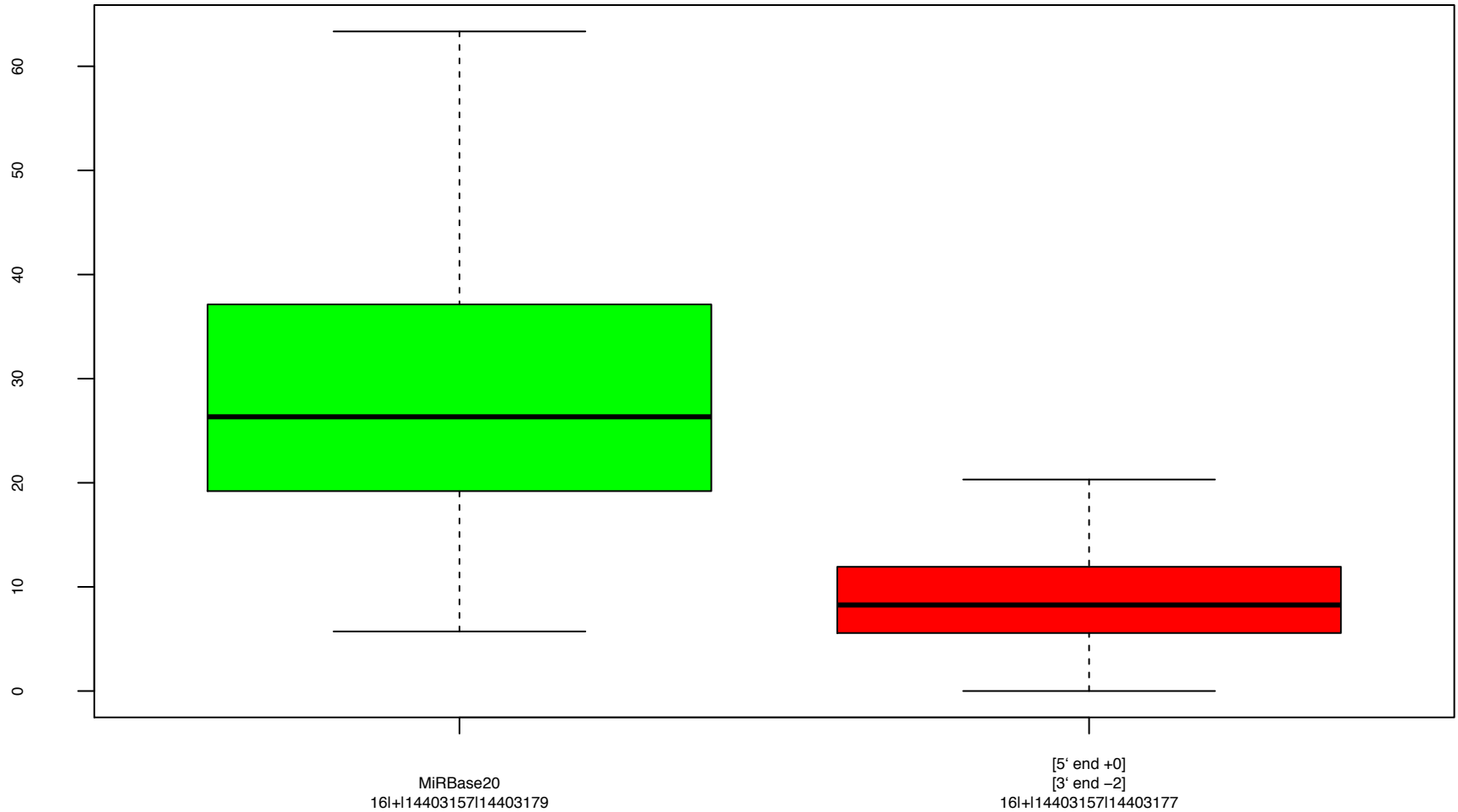


MiRBase20  
8l-11358127751135812796

isomiRs

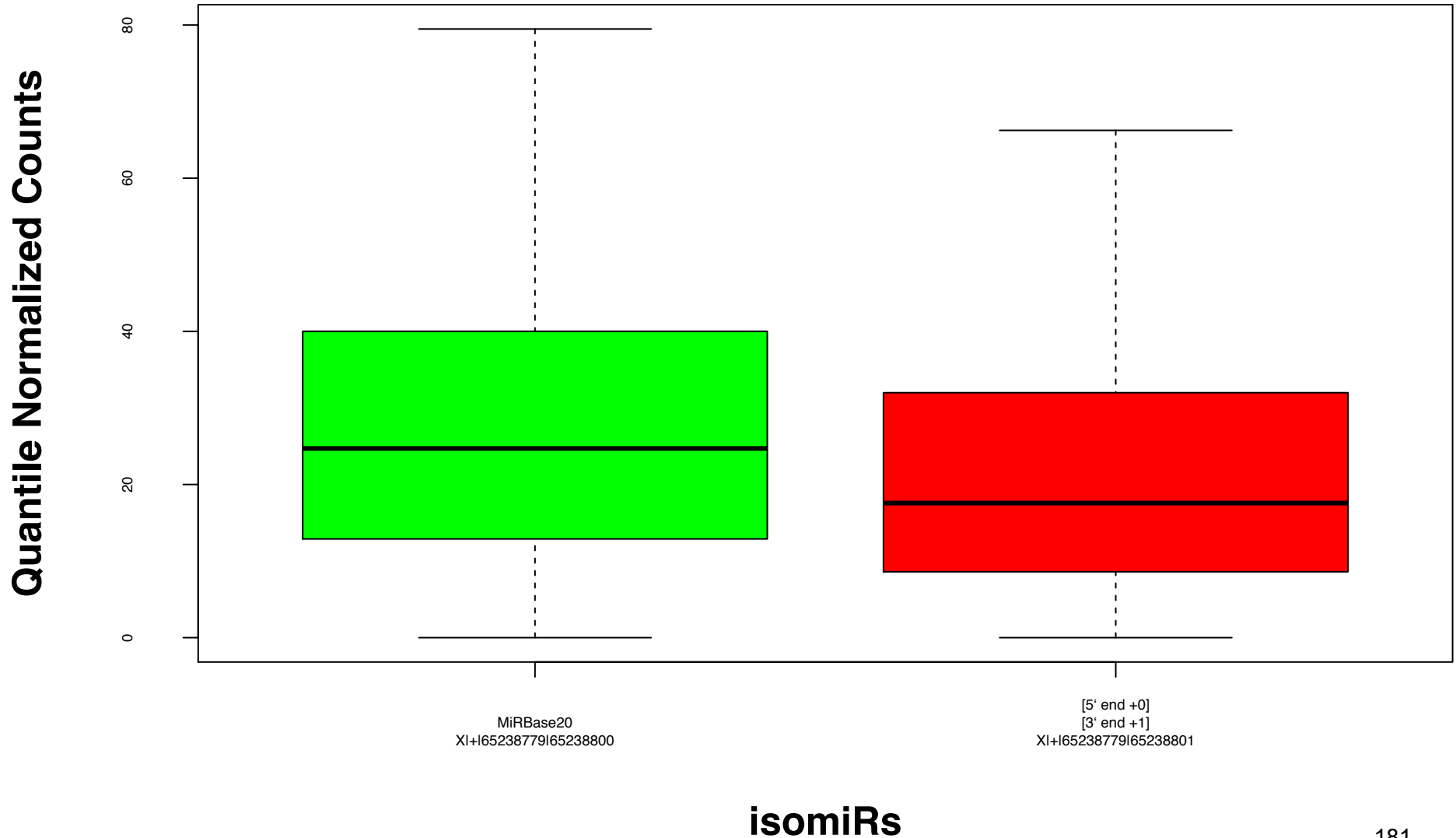
# MIMAT0009199=hsa-miR-365a-5p=MI0000767

Quantile Normalized Counts



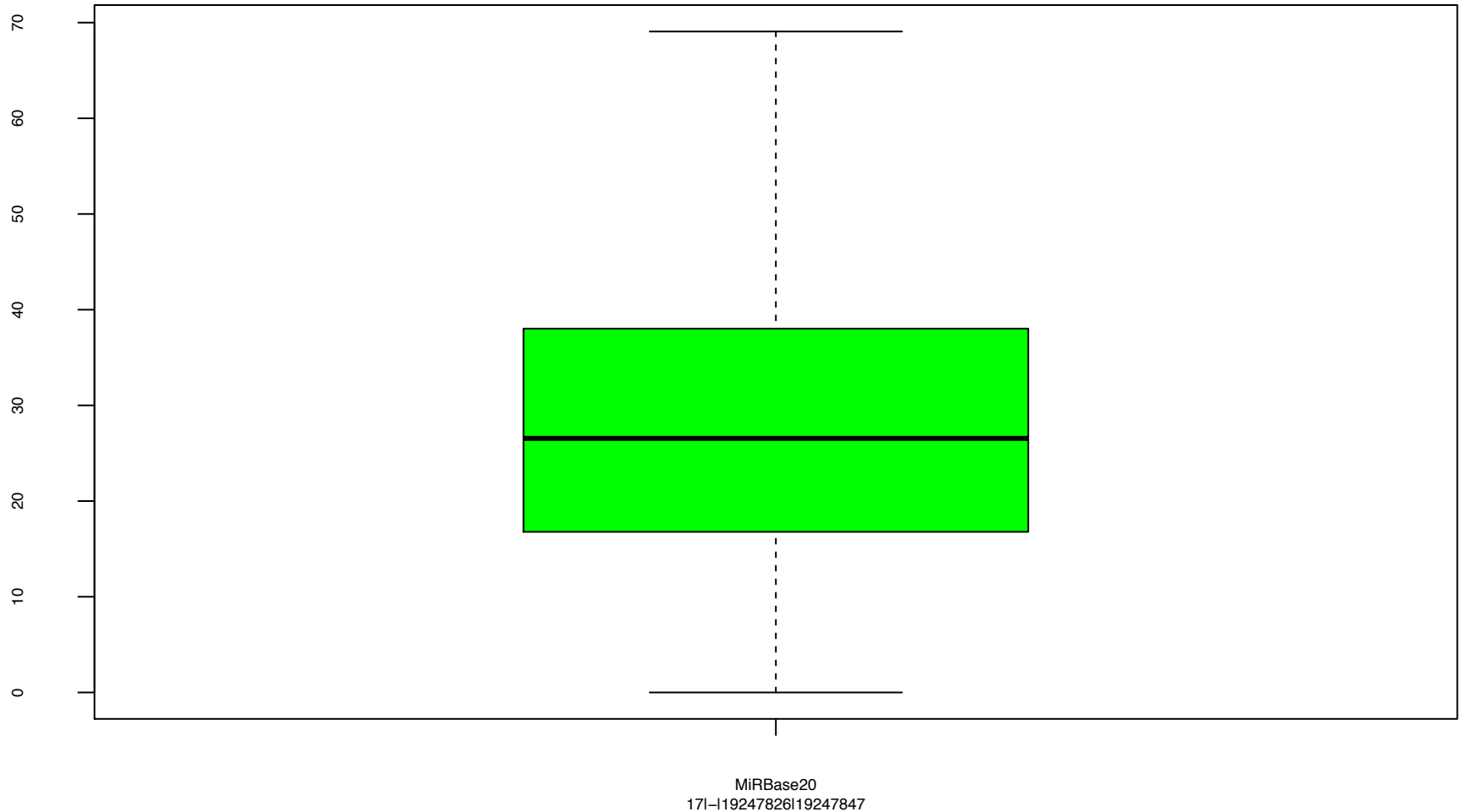
isomiRs

# MIMAT0000280=hsa-miR-223-3p=MI0000300



# MIMAT0005825=hsa-miR-1180-3p=MI0006273

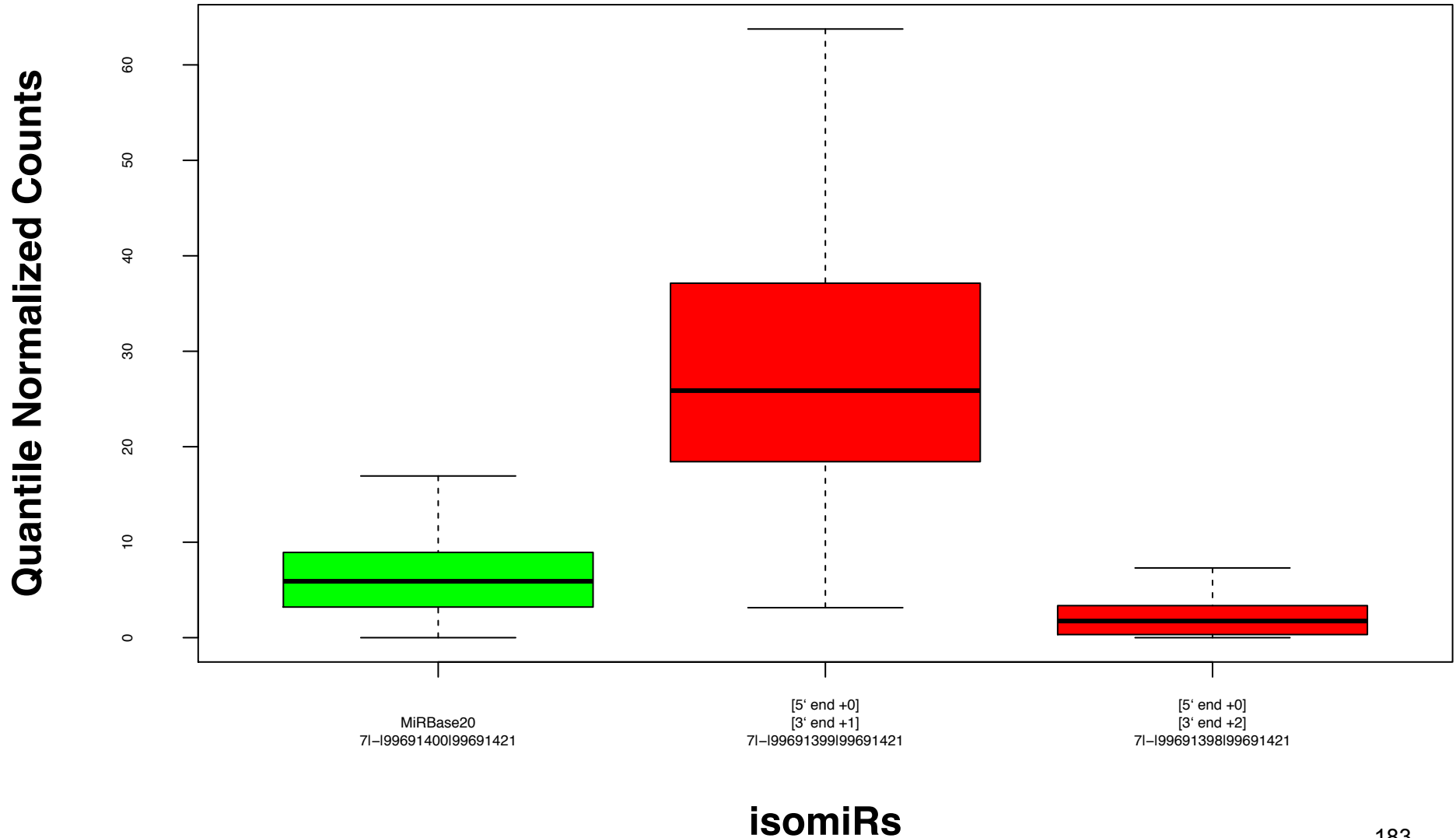
Quantile Normalized Counts



MiRBase20  
171-119247826|19247847

isomiRs

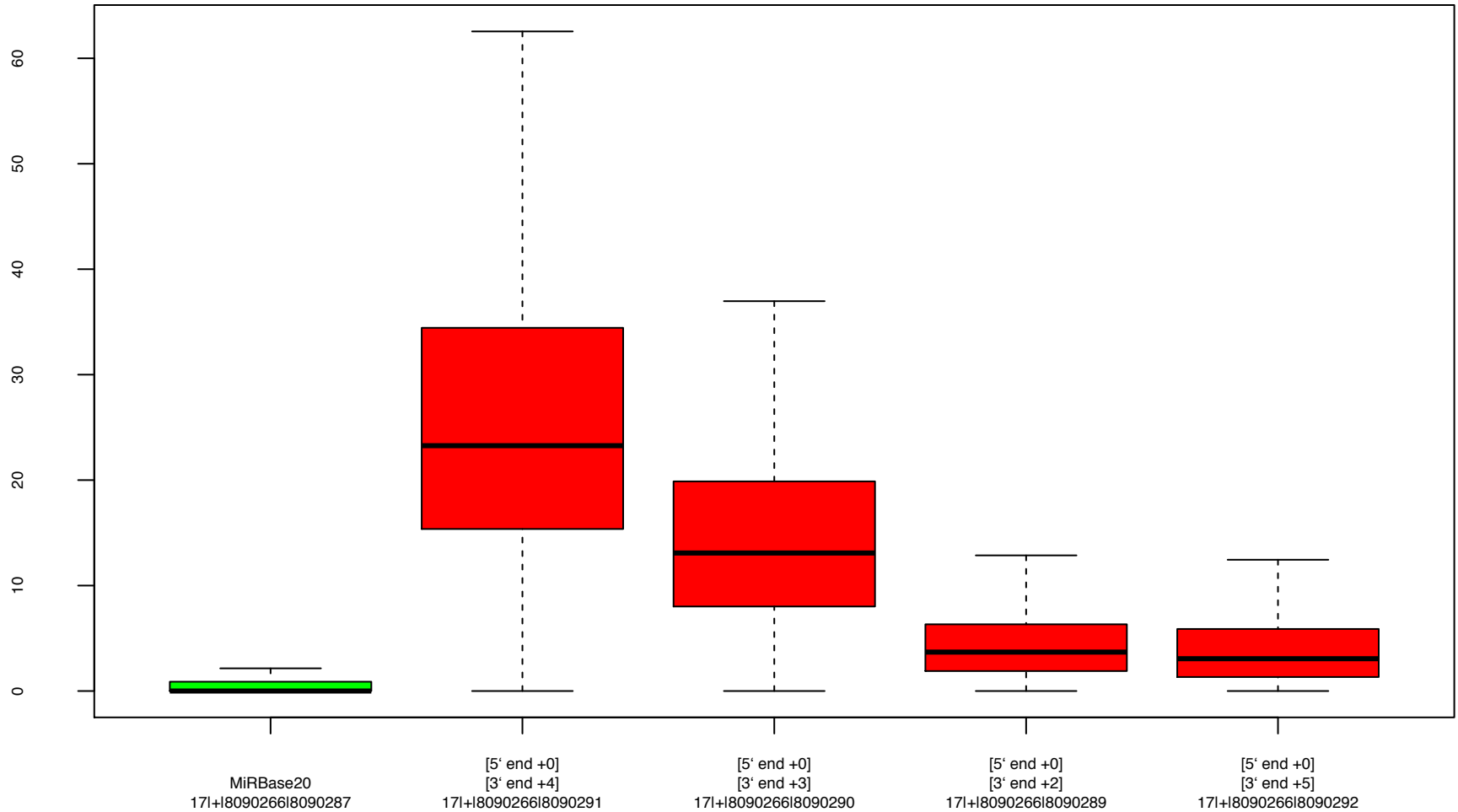
# MIMAT0004509=hsa-miR-93-3p=MI0000095





# MIMAT0019058=hsa-miR-4521=MI0016887

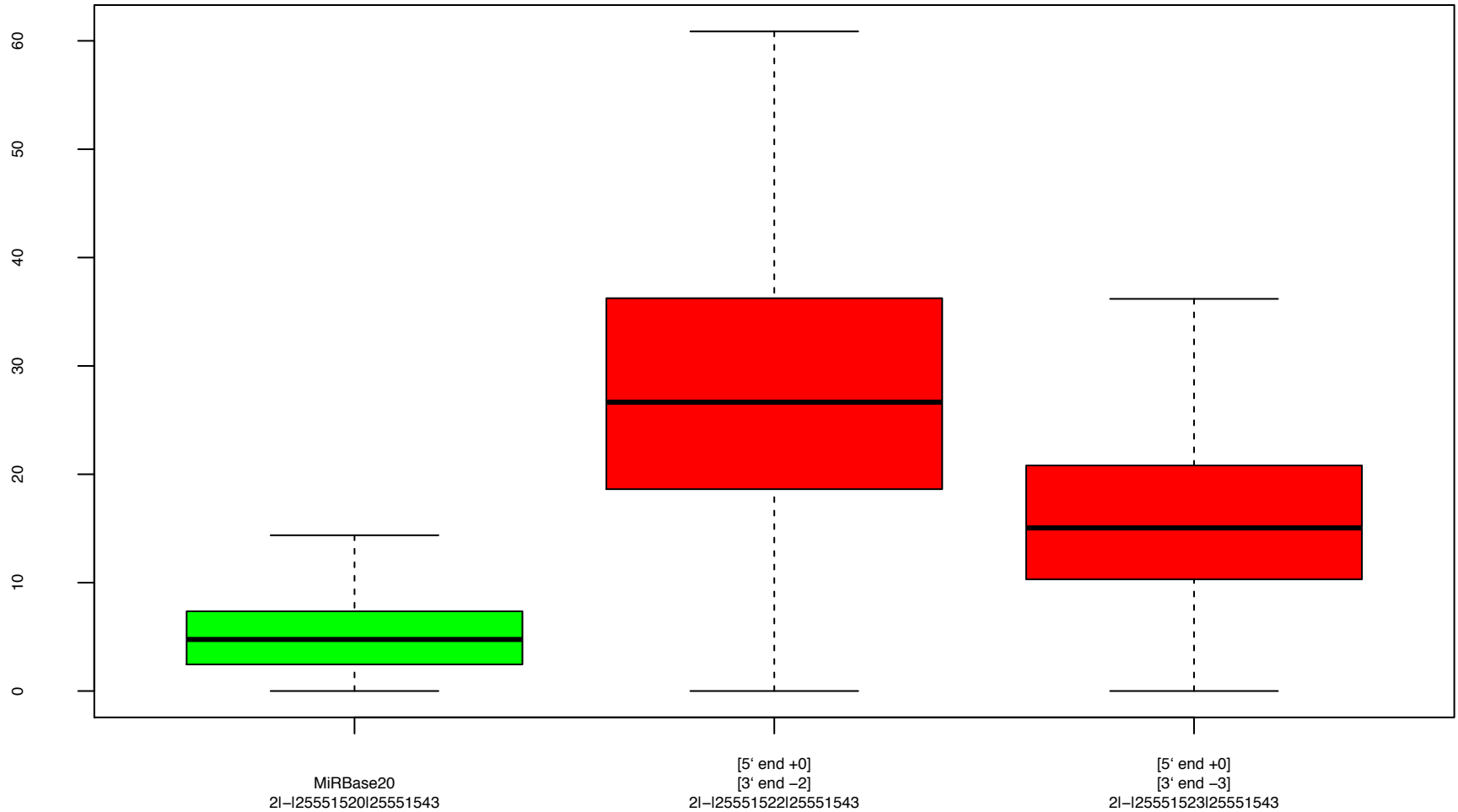
Quantile Normalized Counts



isomiRs

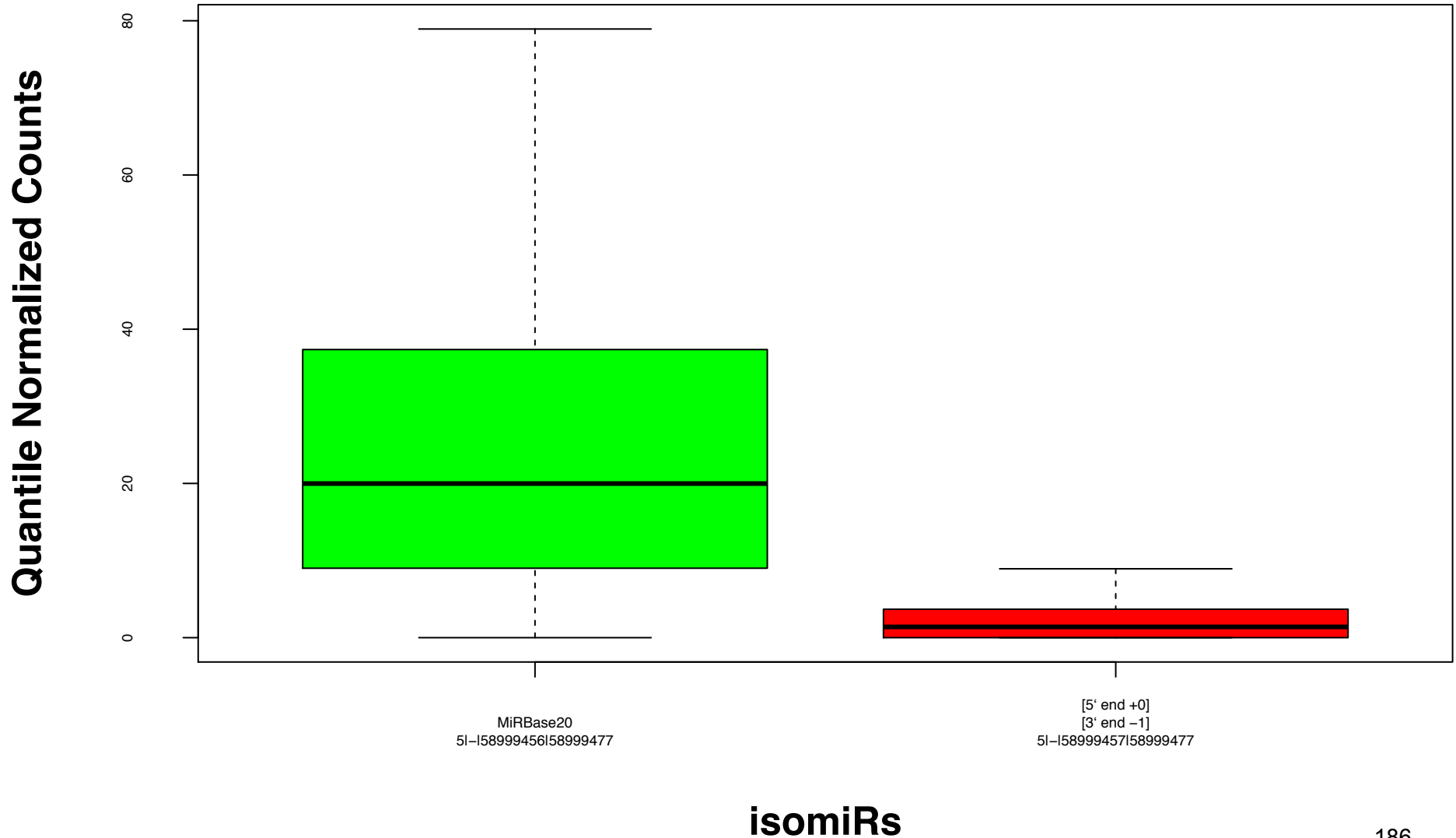
# MIMAT0005797=hsa-miR-1301-3p=MI0003815

Quantile Normalized Counts



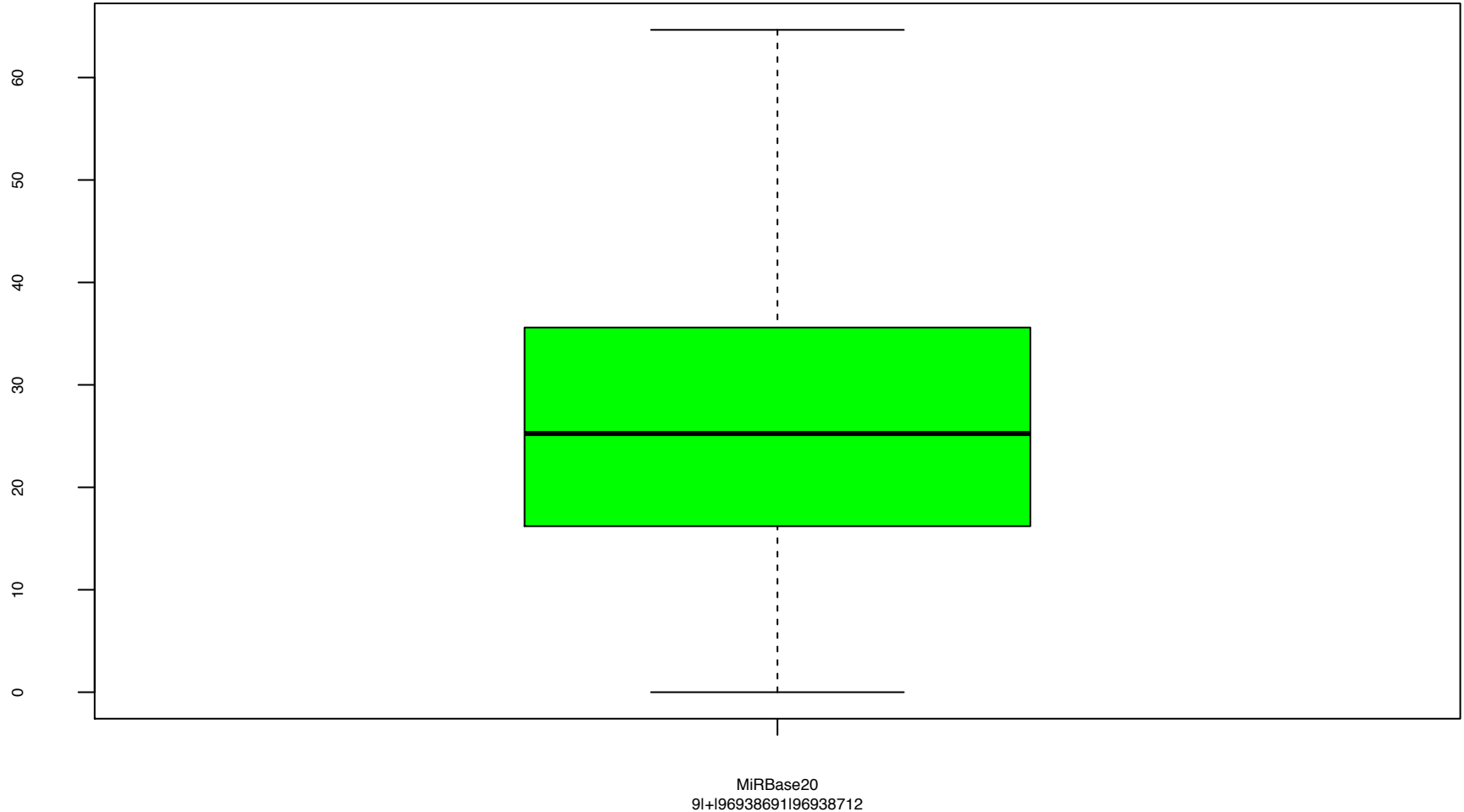
isomiRs

# MIMAT0004797=hsa-miR-582-3p=MI0003589



# MIMAT0004486=hsa-let-7f-1-3p=MI0000067

Quantile Normalized Counts

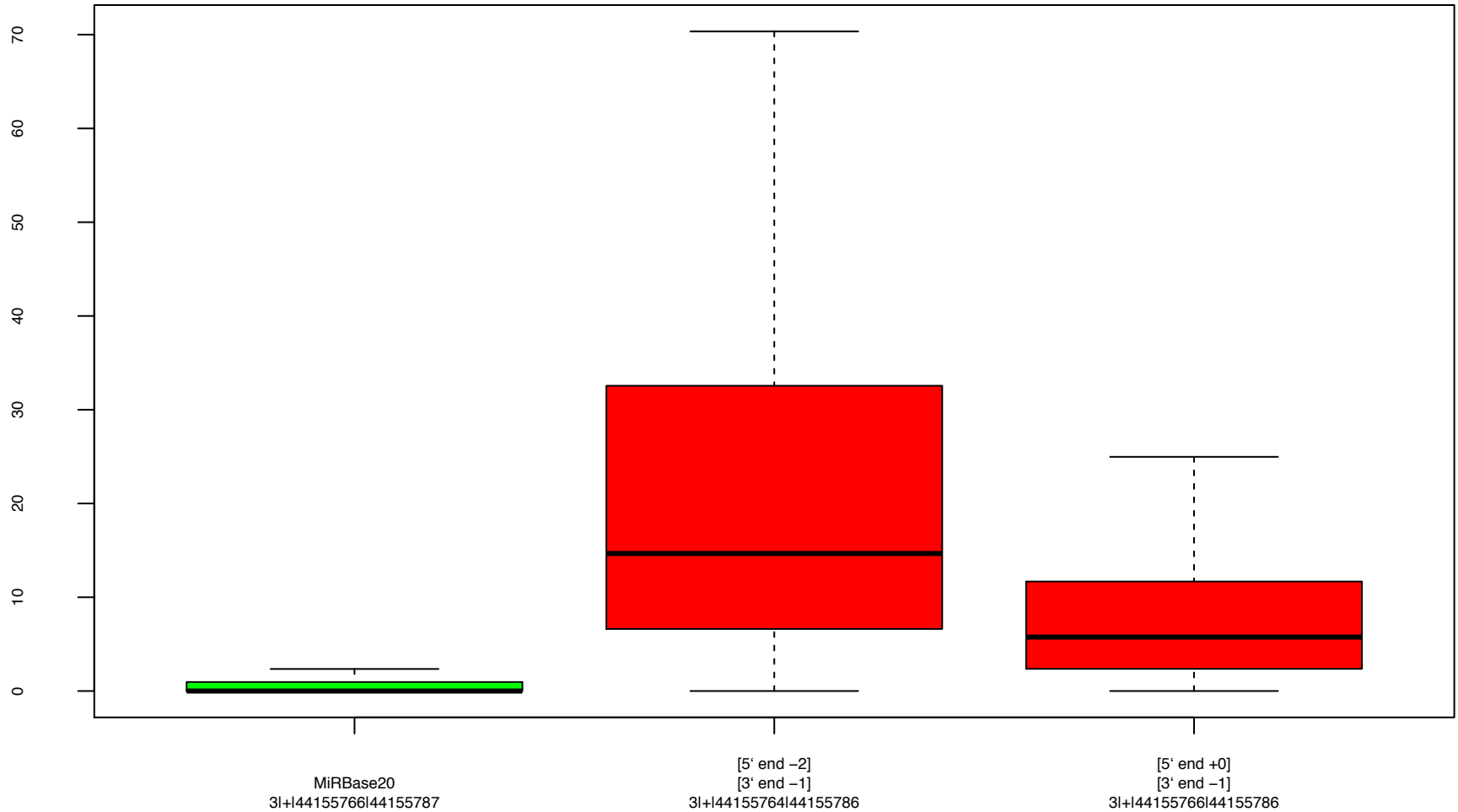


MiRBase20  
9l+l96938691196938712

isomiRs

# MIMAT0004607=hsa-miR-138-1-3p=MI0000476

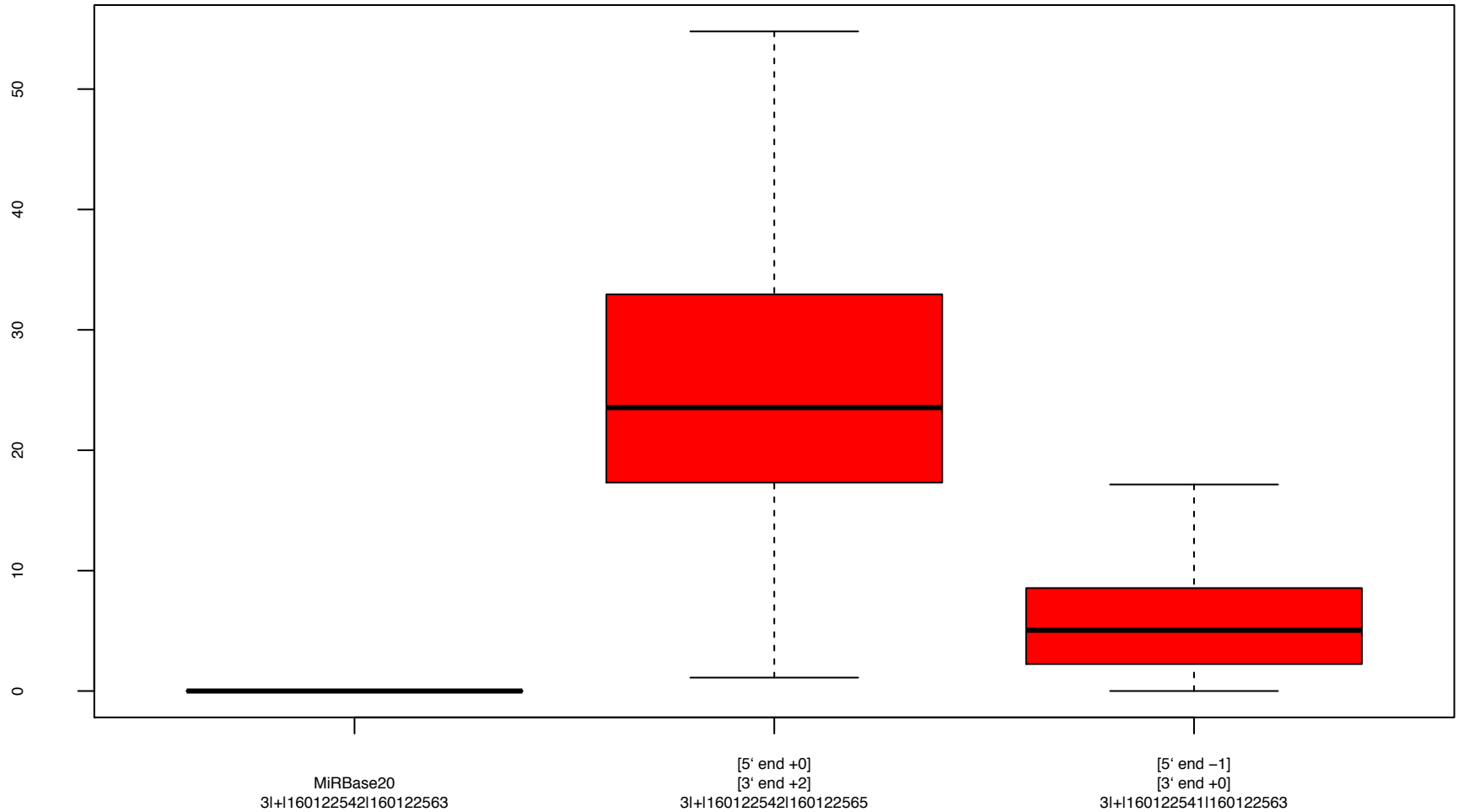
Quantile Normalized Counts



isomiRs

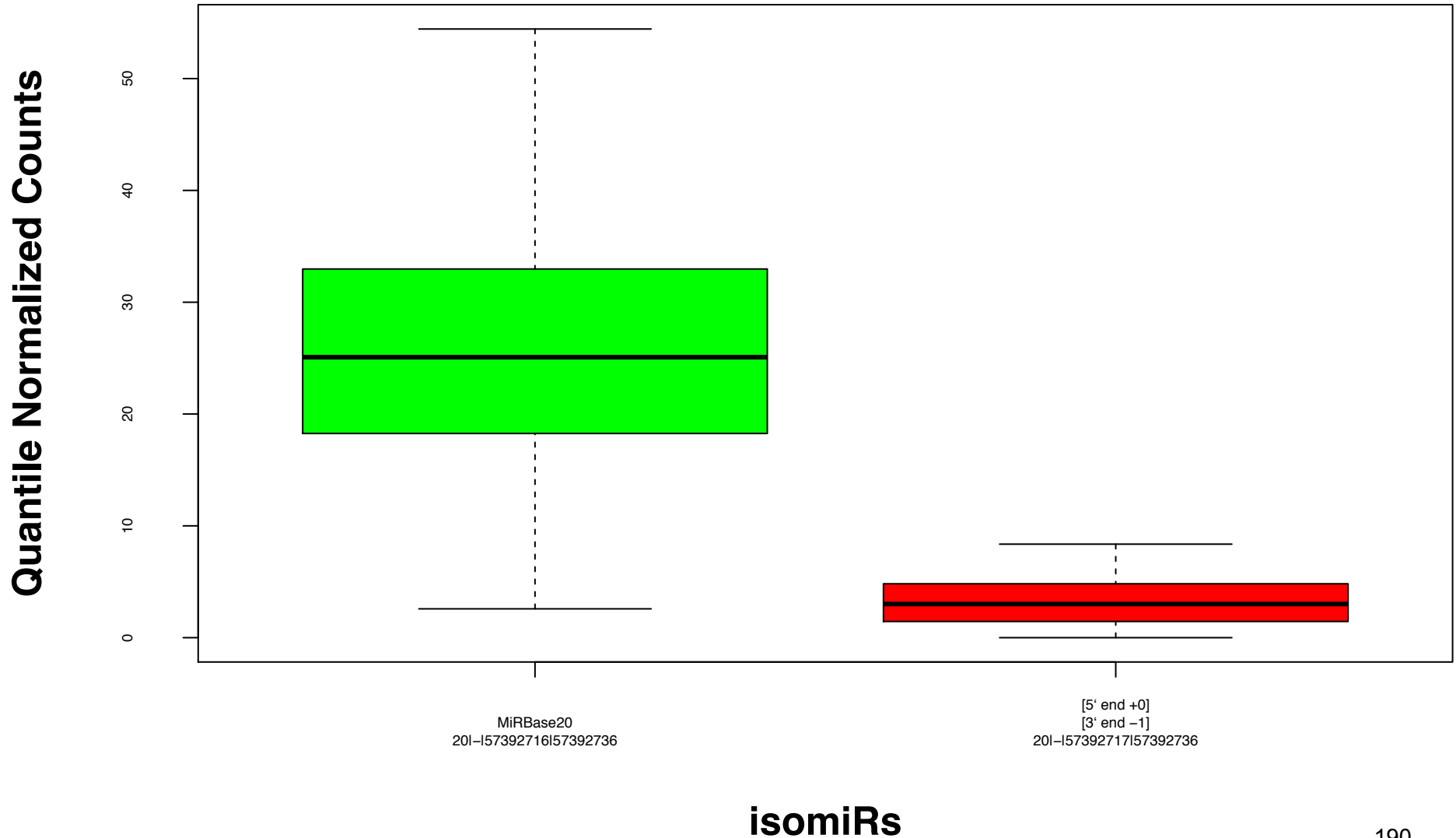
# MIMAT0000069\_1=hsa-miR-16-5p=MI0000115

Quantile Normalized Counts

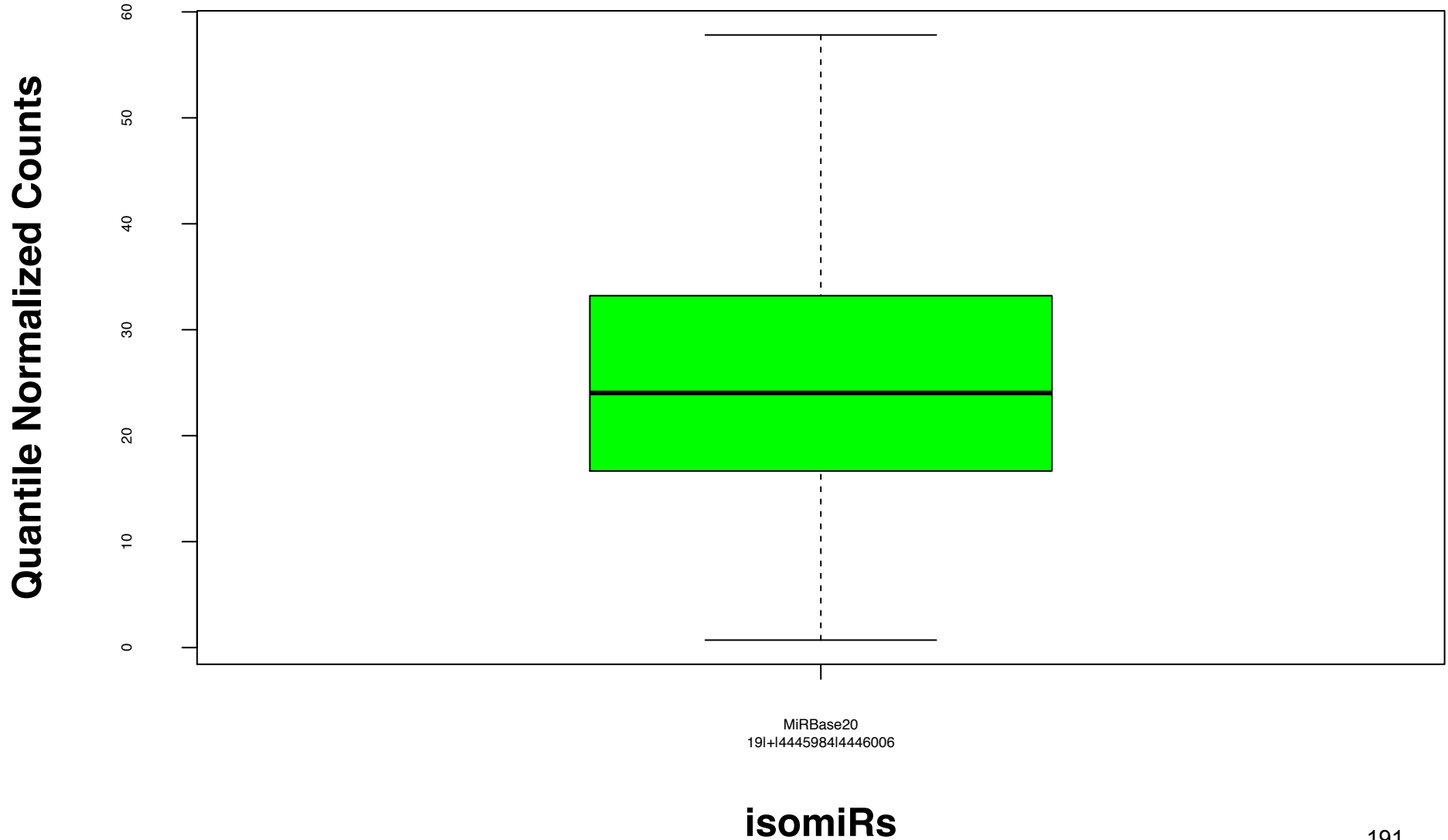


isomiRs

# MIMAT0000690=hsa-miR-296-5p=MI0000747



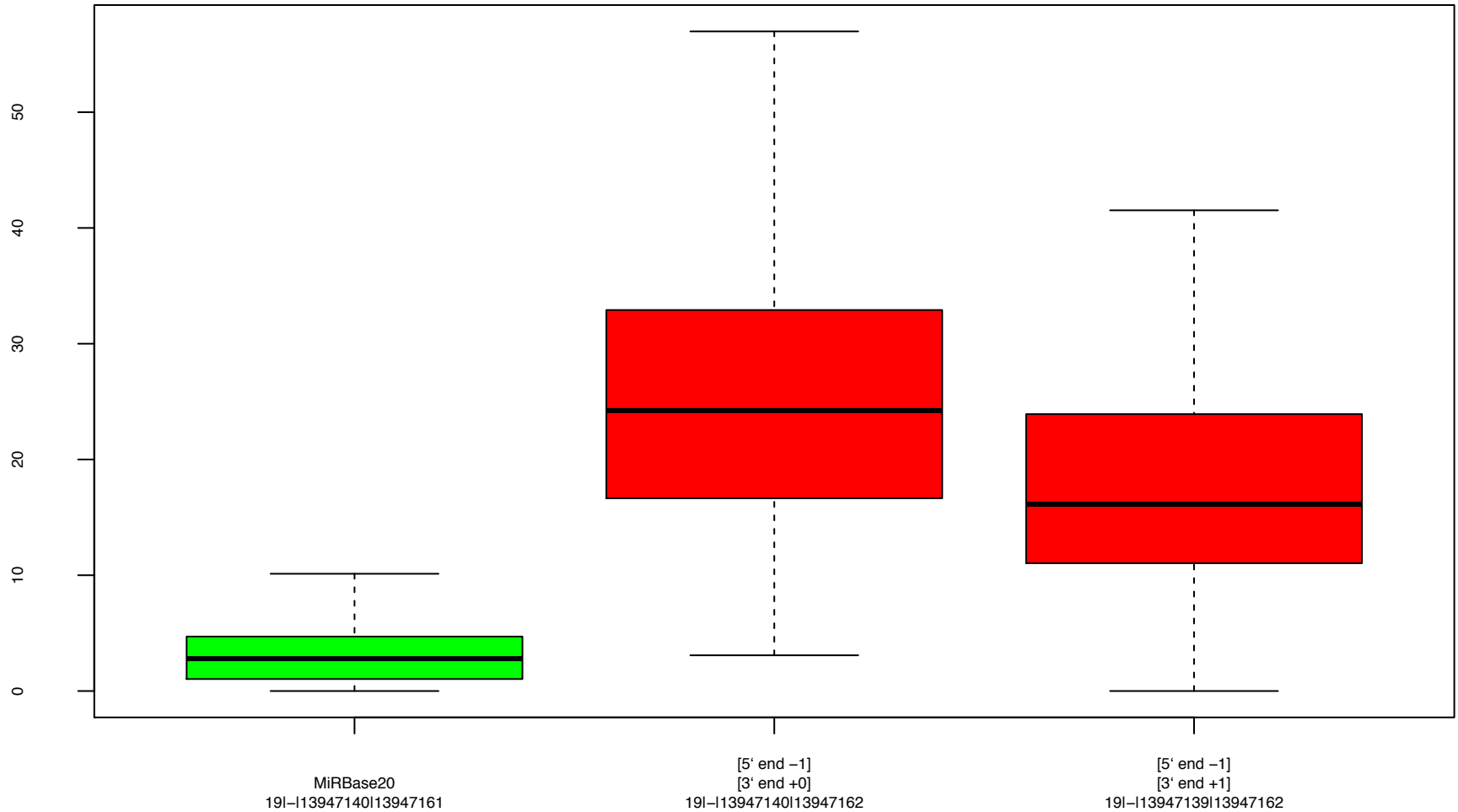
# MIMAT0019880=hsa-miR-4746-5p=MI0017385





# MIMAT0004497=hsa-miR-24-2-5p=MI0000081

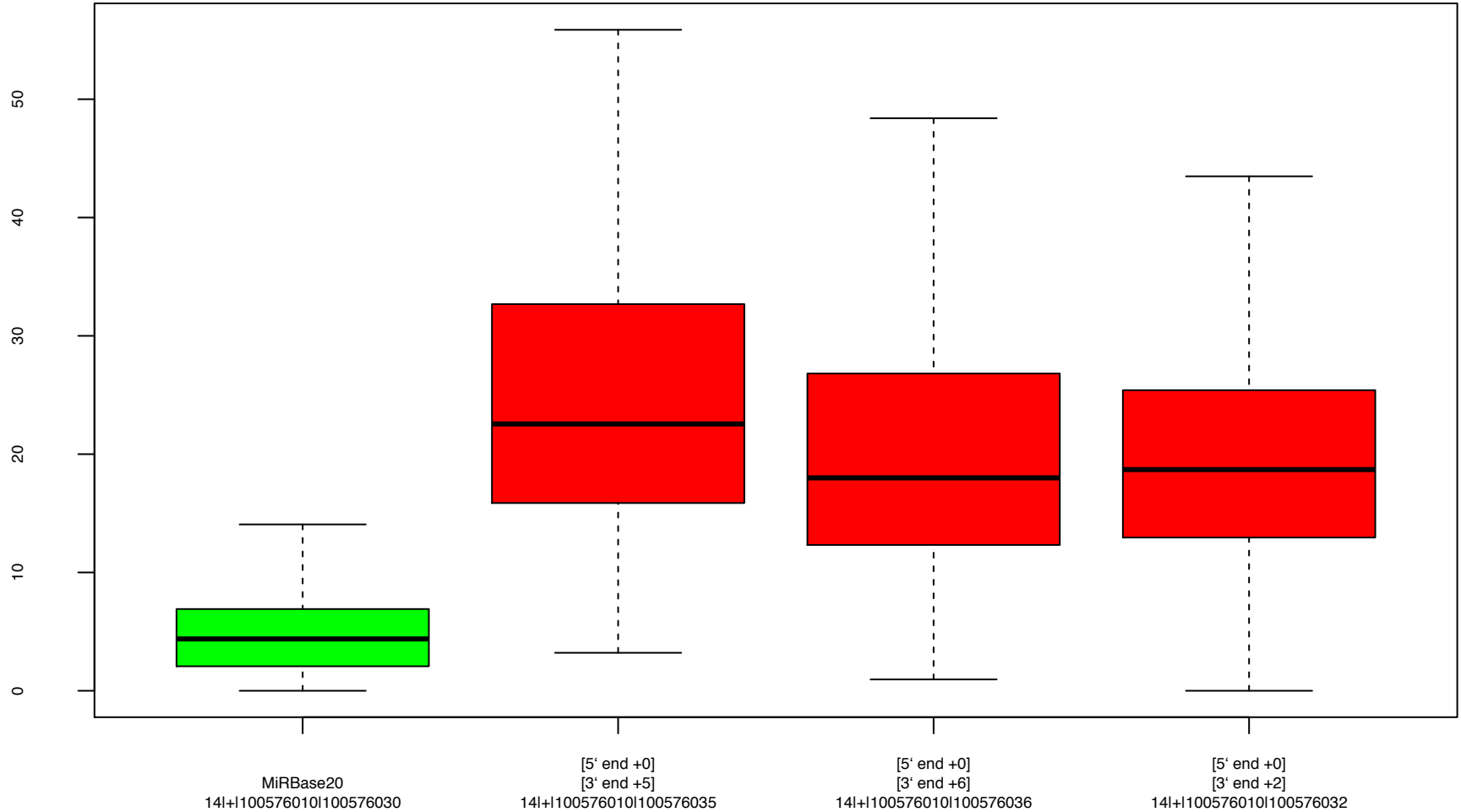
Quantile Normalized Counts



isomiRs

# MIMAT0004694=hsa-miR-342-5p=MI0000805

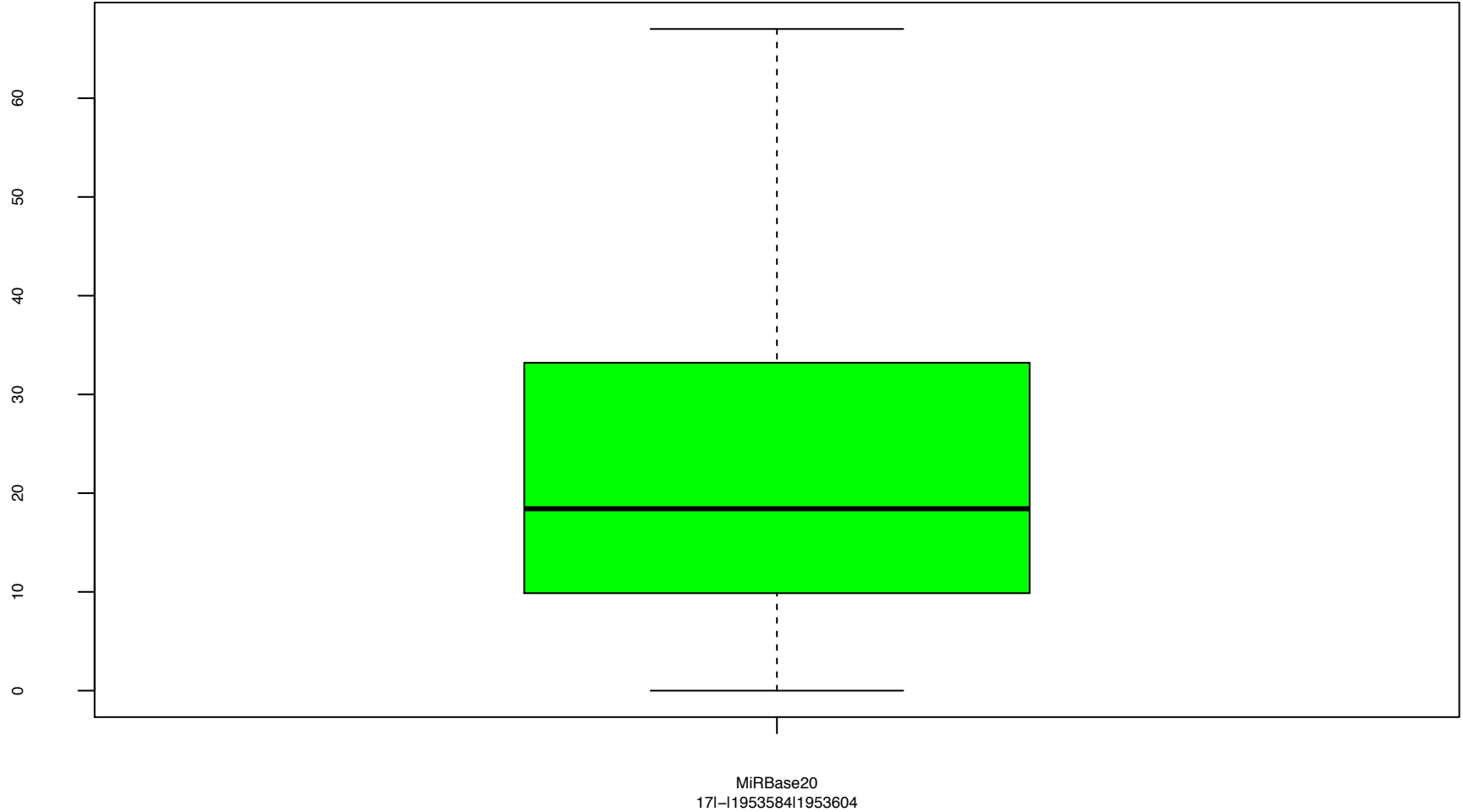
Quantile Normalized Counts



isomiRs

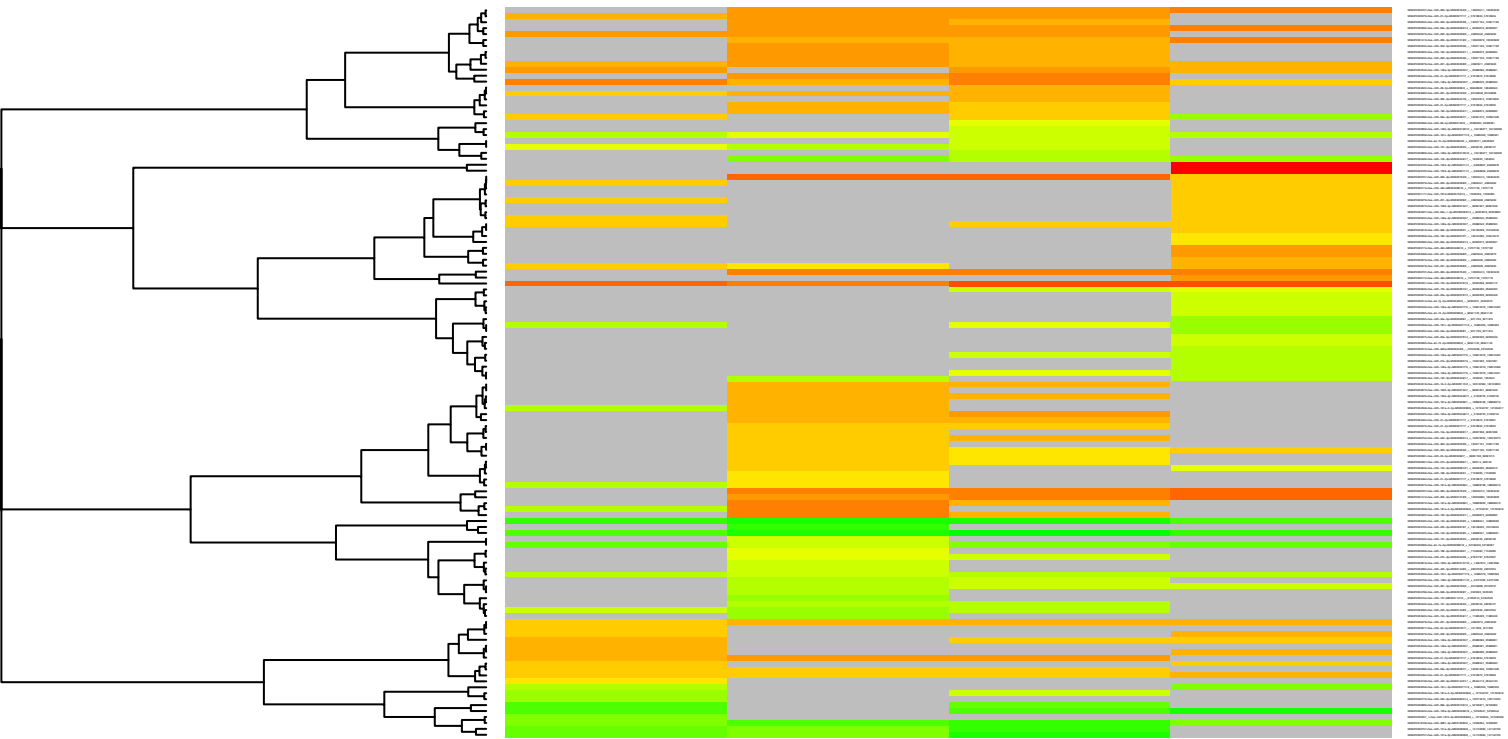
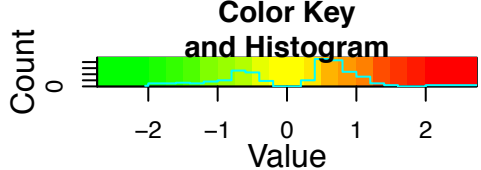
# MIMAT0000269=hsa-miR-212-3p=MI0000288

Quantile Normalized Counts



isomiRs

# CEU vs All



CEU\_vs\_FIN

CEU\_vs\_GBR

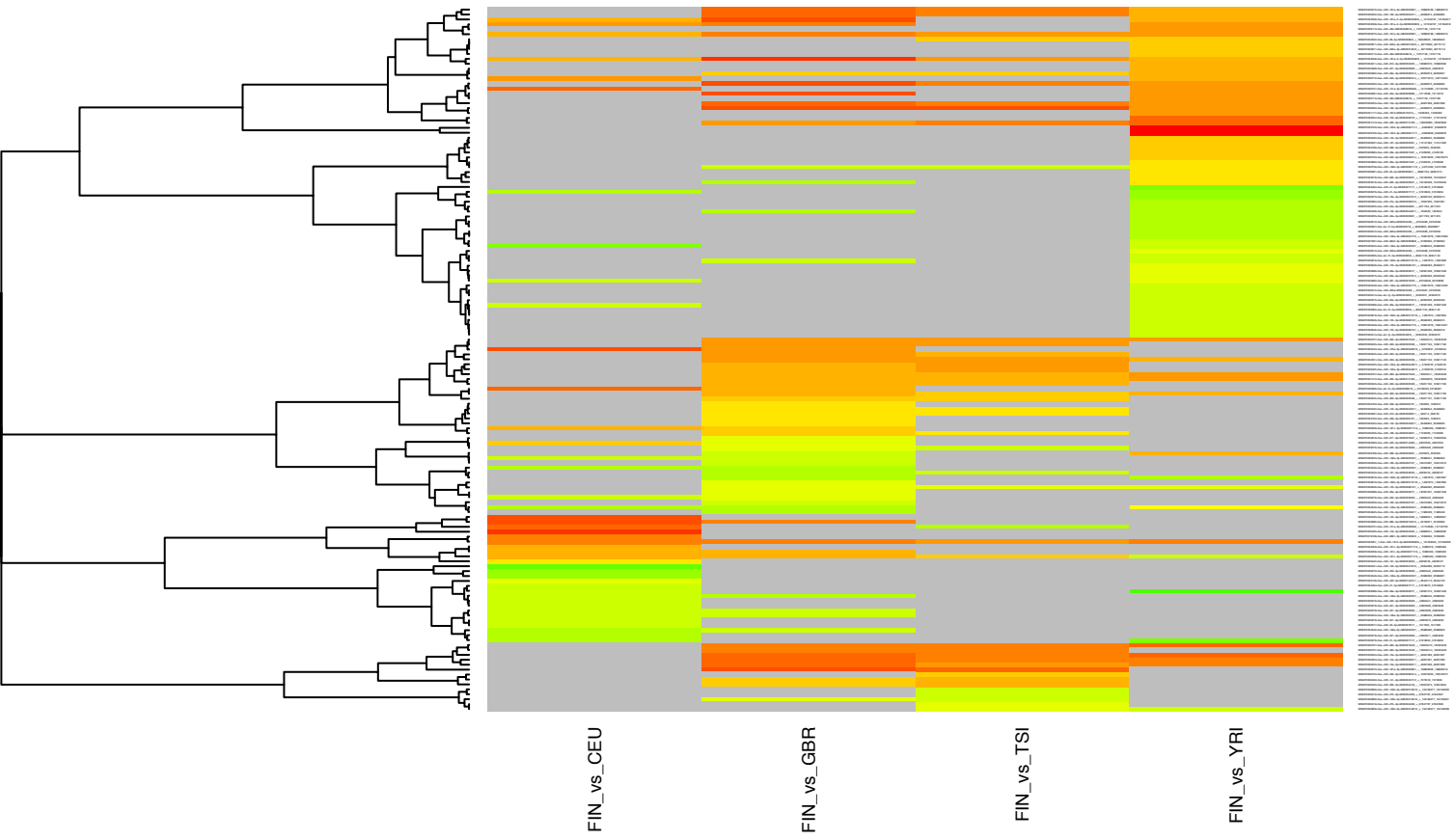
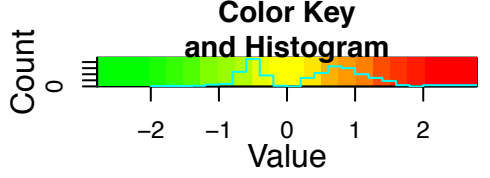
CEU\_vs\_TSI

CEU\_vs\_YRI

isomiR

Population Comparison

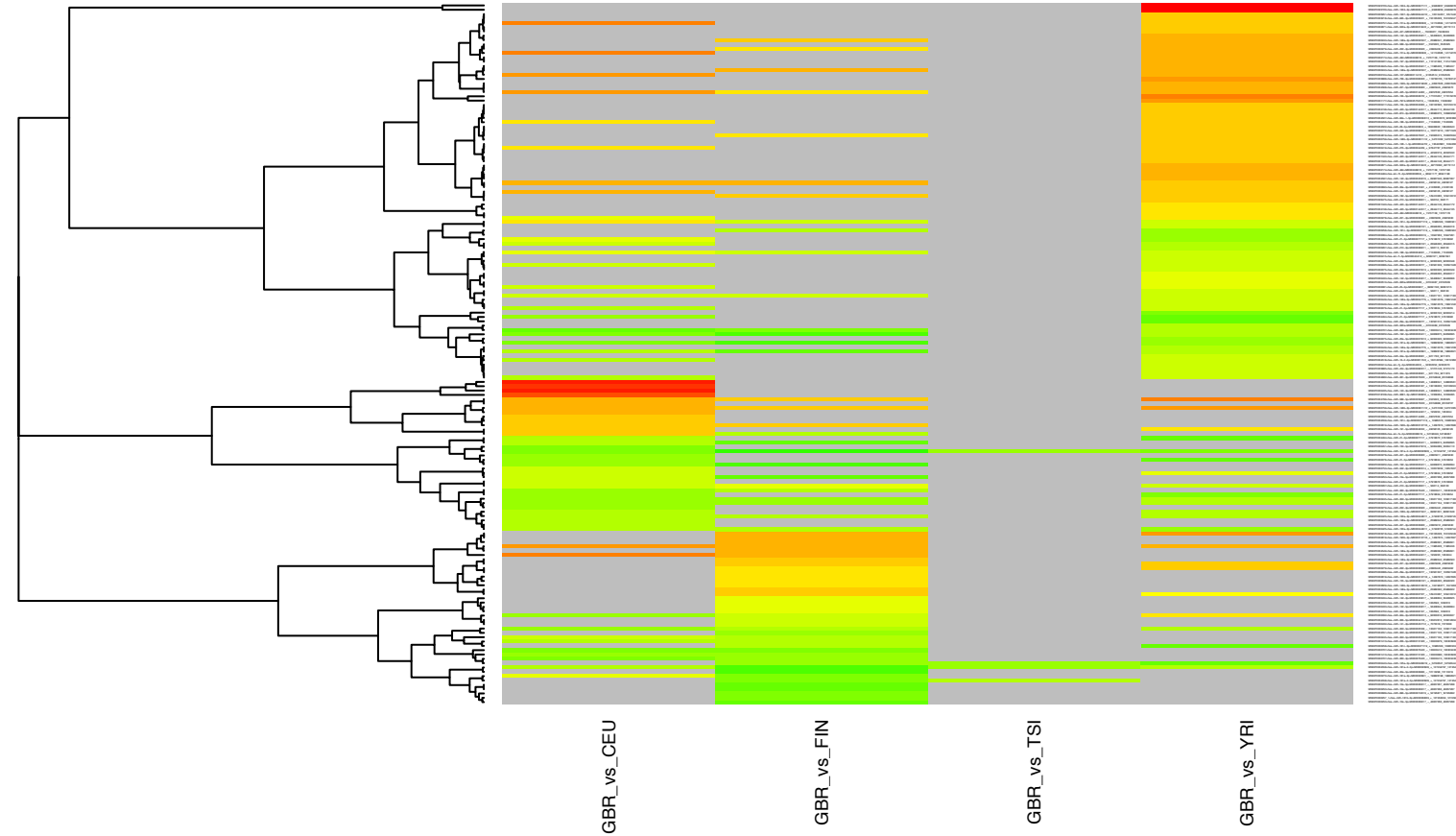
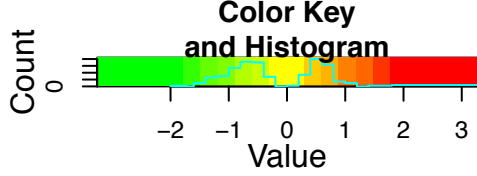
# FIN vs All



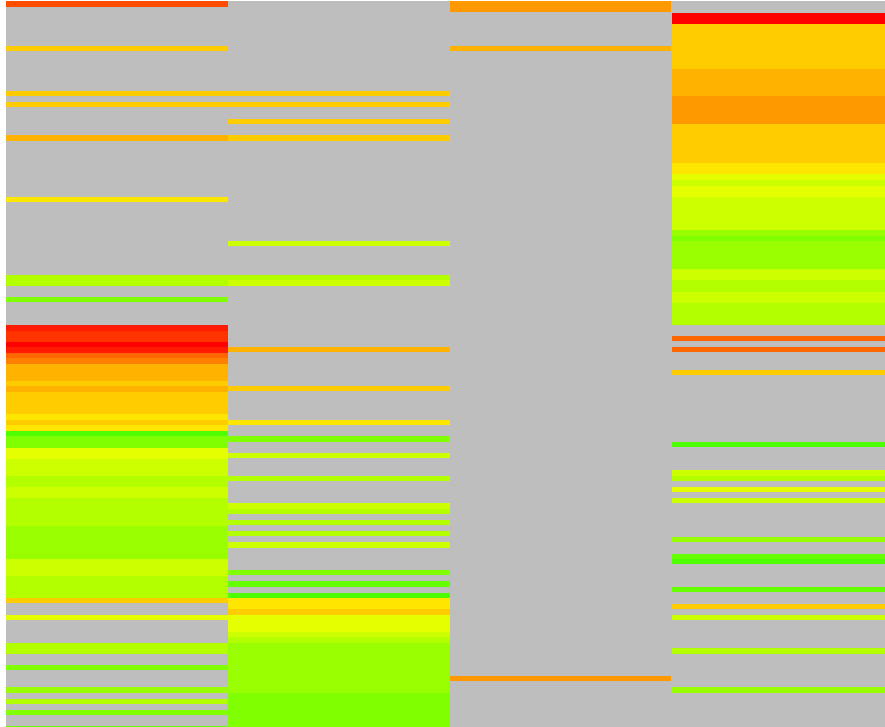
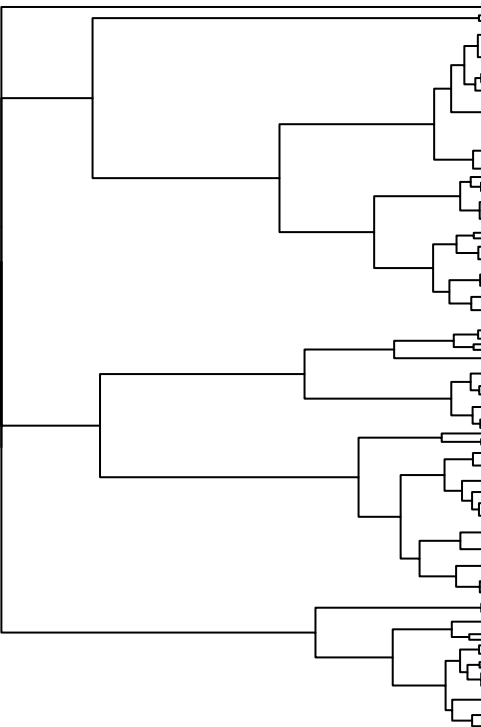
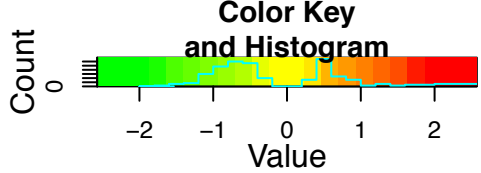
isomiR

Population Comparison

# GBR vs All



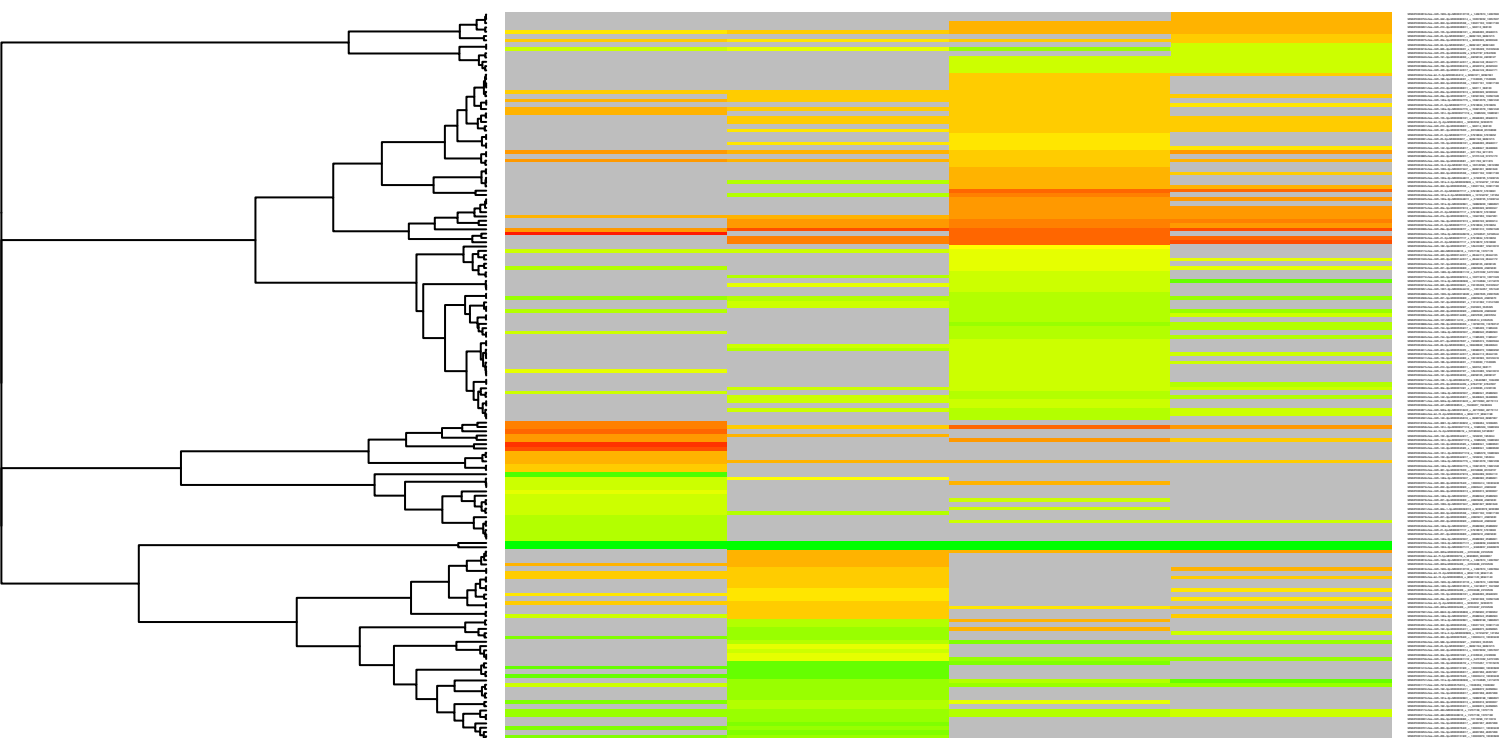
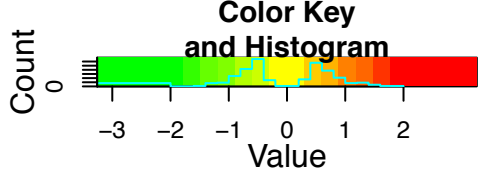
# TSI vs All



isomiR

Small text labels for individual isomiR entries, likely corresponding to the rows in the heatmap. The text is too small to read clearly but appears to be a list of identifiers.

# YRI vs All



YRI\_vs\_CEU

YRI\_vs\_FIN

YRI\_vs\_GBR

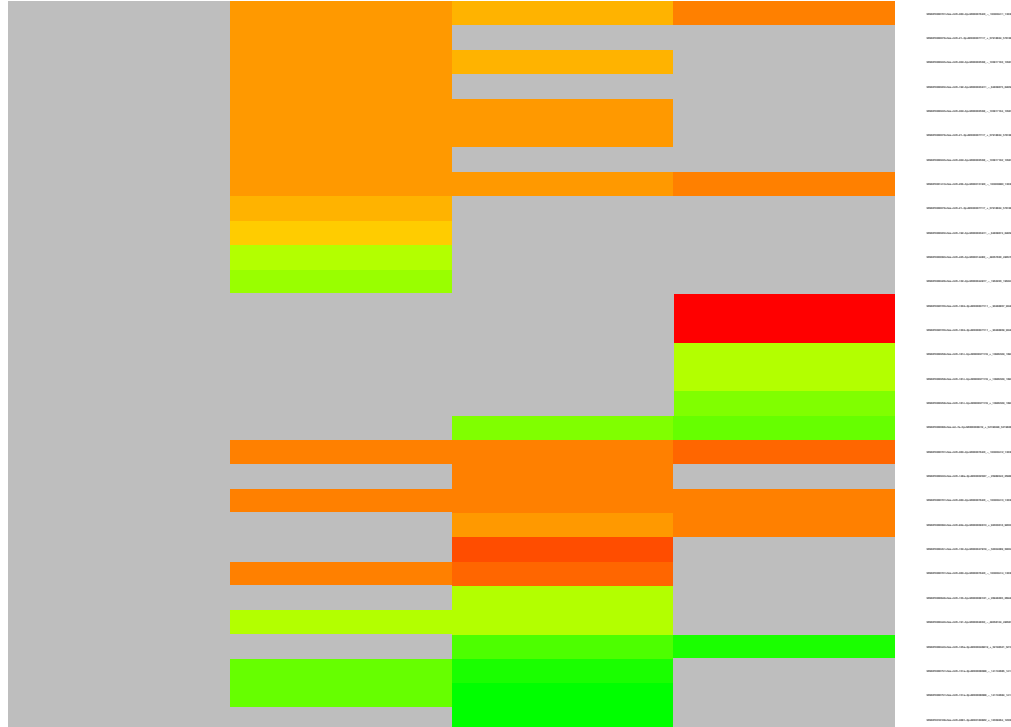
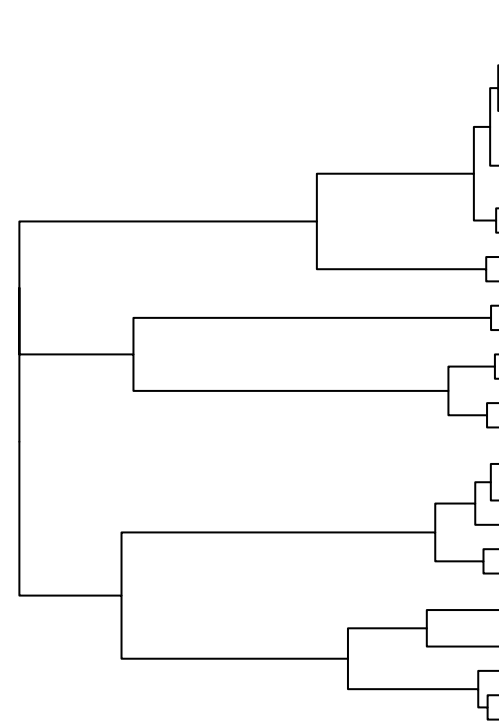
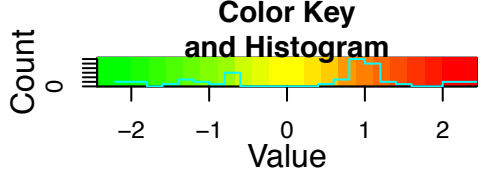
YRI\_vs\_TSI

Population Comparison

isomiR

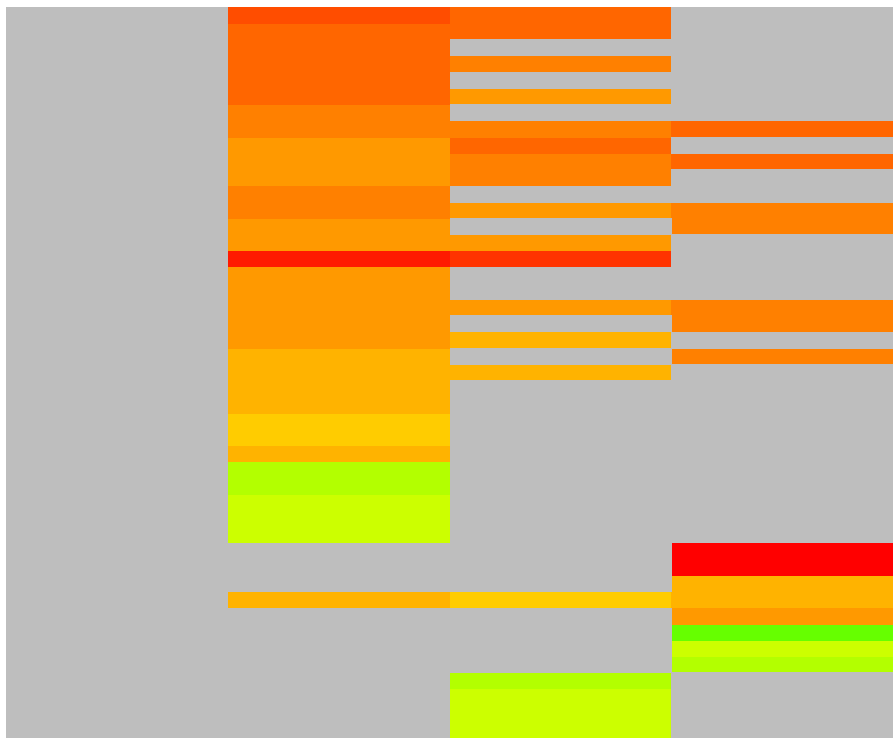
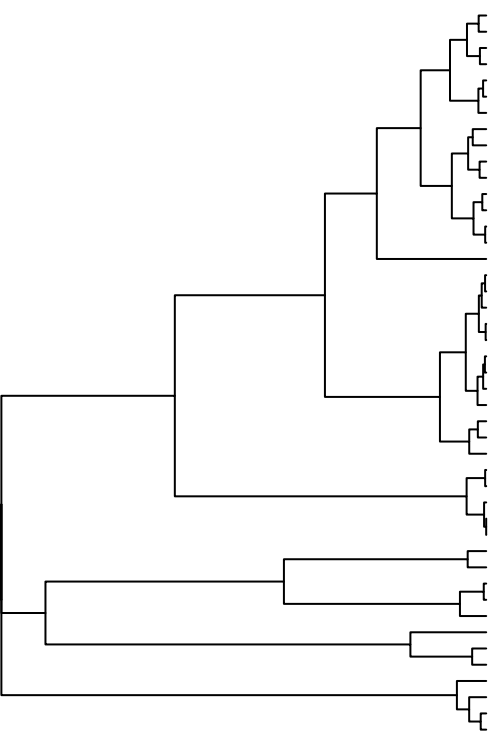
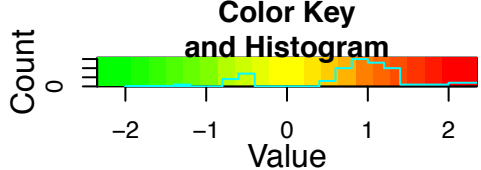


# MalesOnly: CEU vs All



isomiR

# MalesOnly: FIN vs All



isomiR

FIN\_vs\_CEU

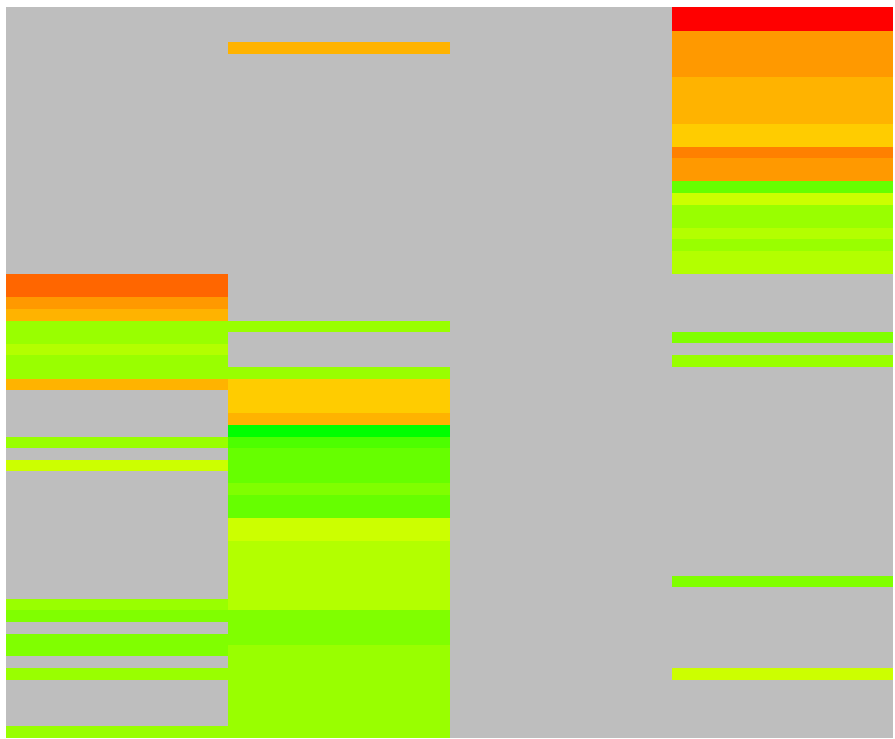
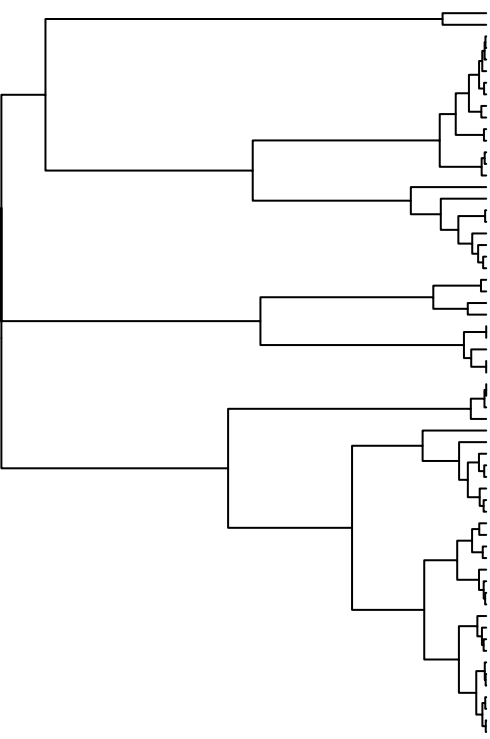
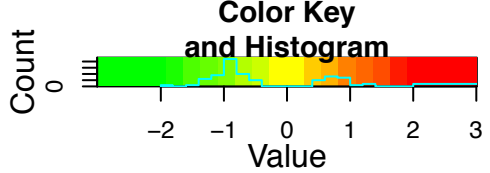
FIN\_vs\_GBR

FIN\_vs\_TSI

FIN\_vs\_YRI

Population Comparison

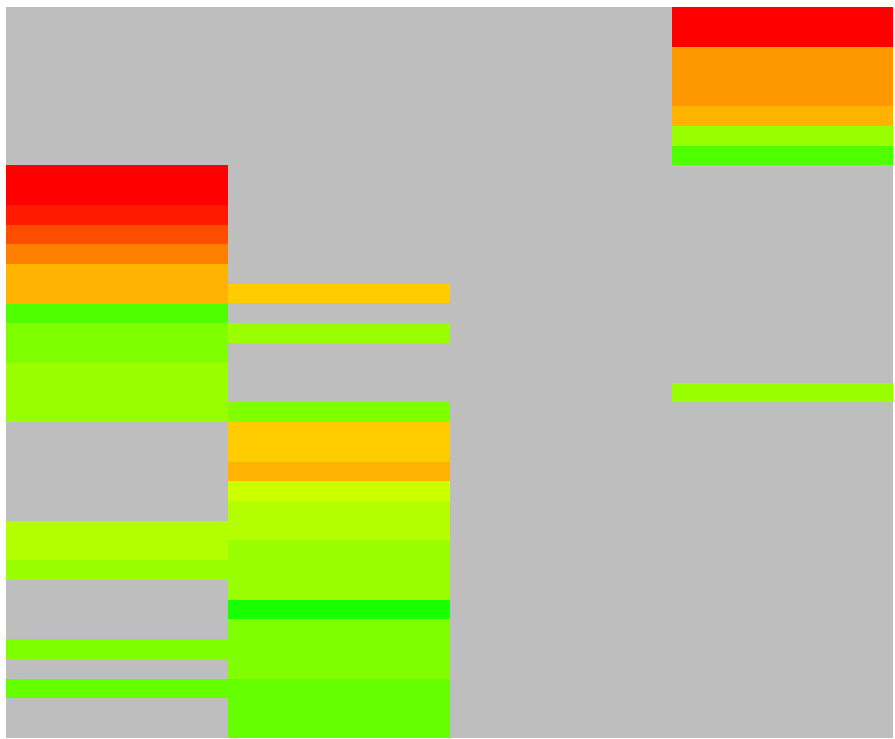
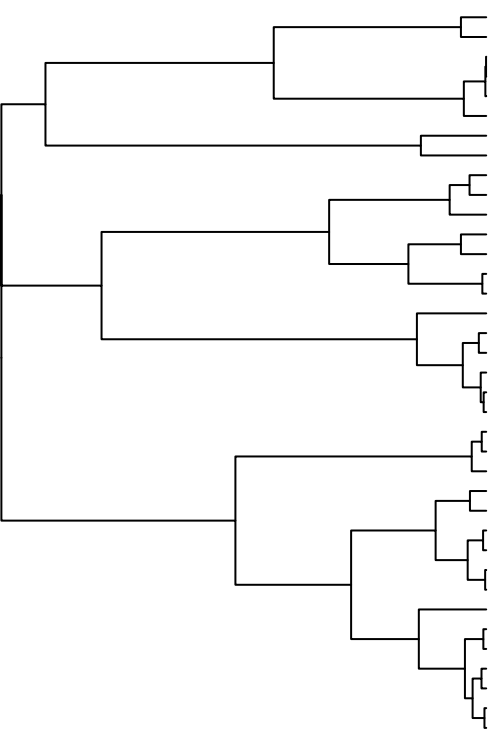
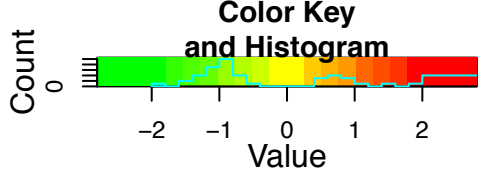
# MalesOnly: GBR vs All



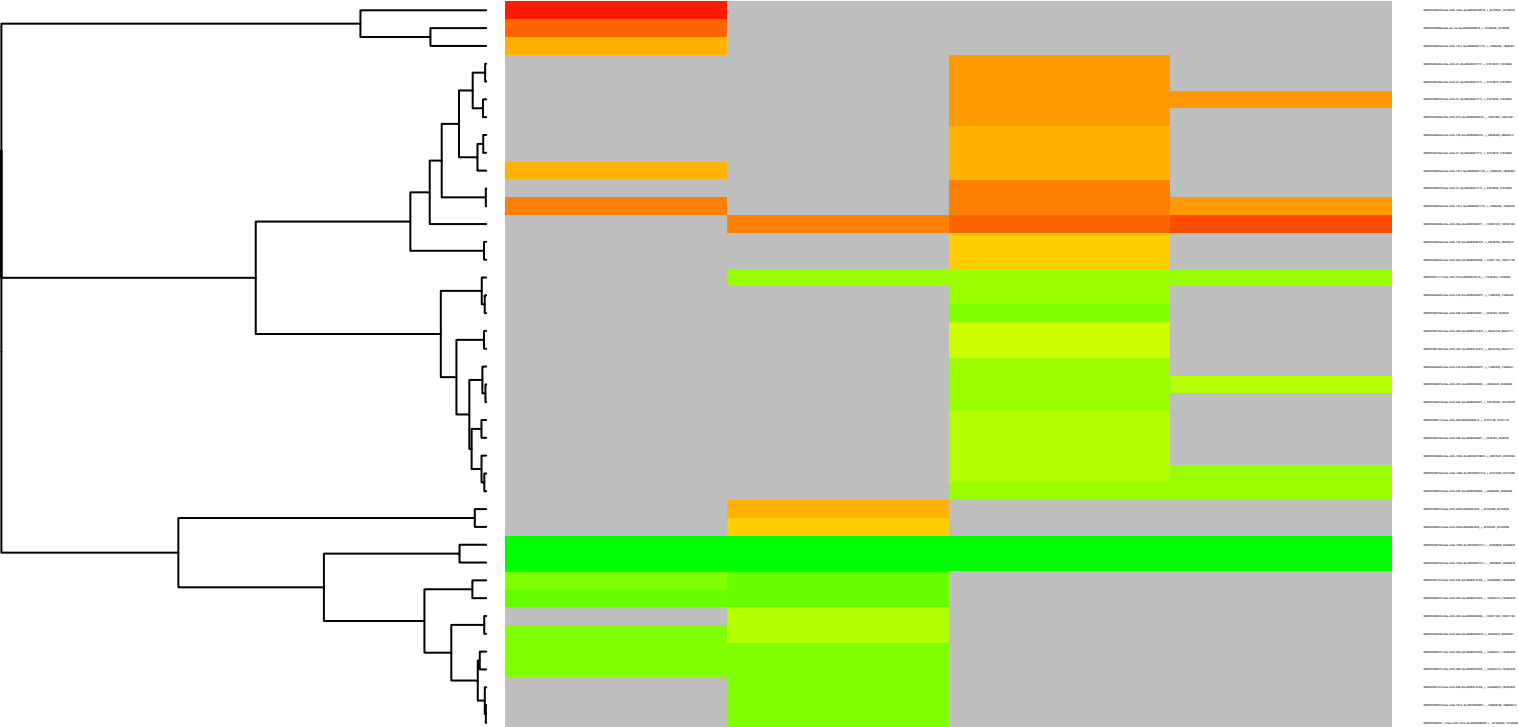
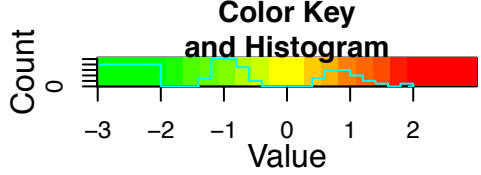
isomiR

Population Comparison

# MalesOnly: TSI vs All



# MalesOnly: YRI vs All



YRI\_vs\_CEU

YRI\_vs\_FIN

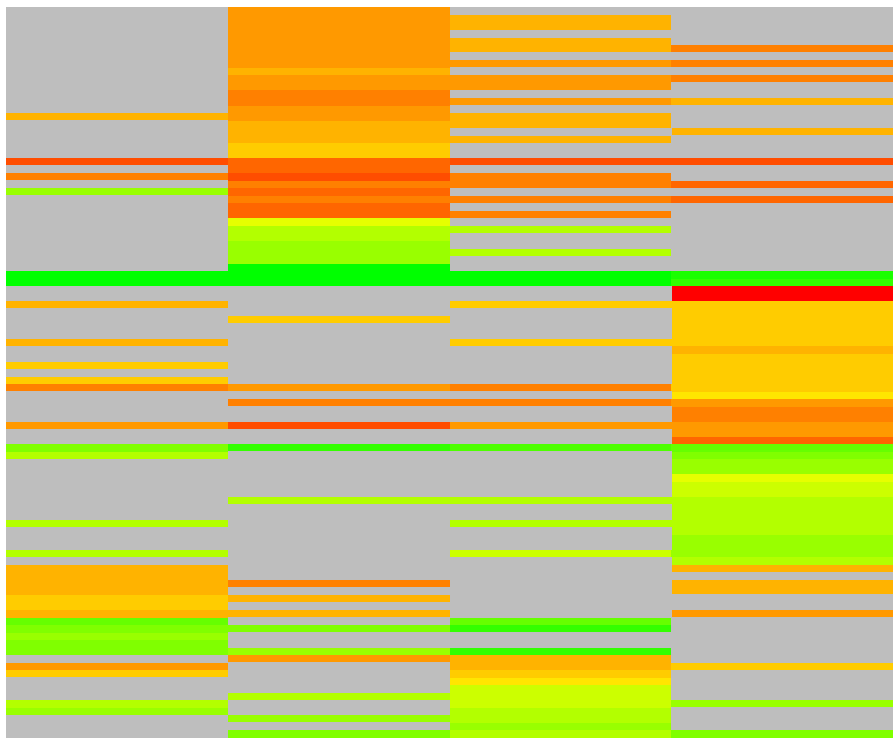
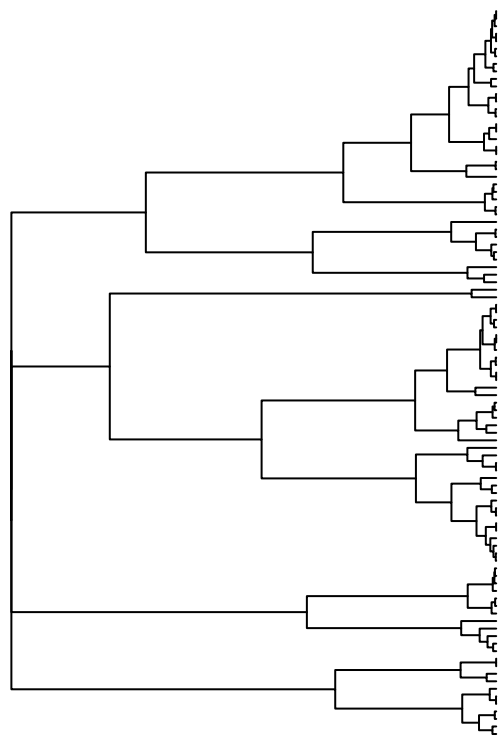
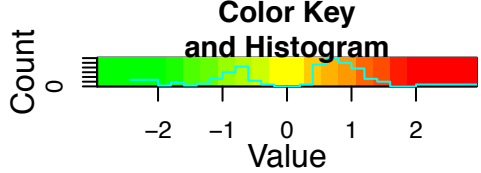
YRI\_vs\_GBR

YRI\_vs\_TSI

Population Comparison

isomiR

# FemalesOnly: CEU vs All



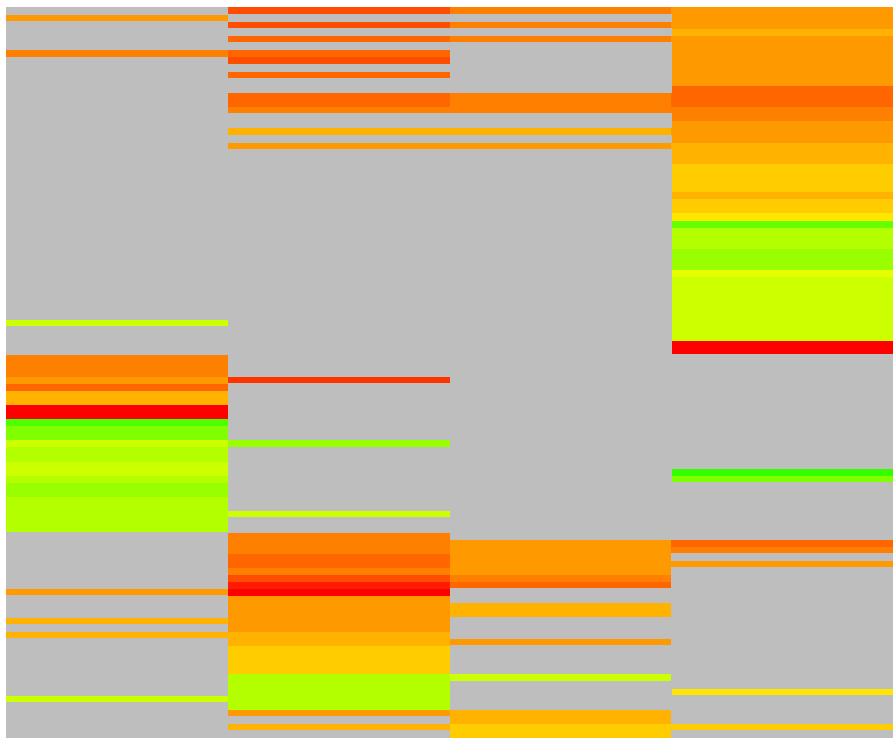
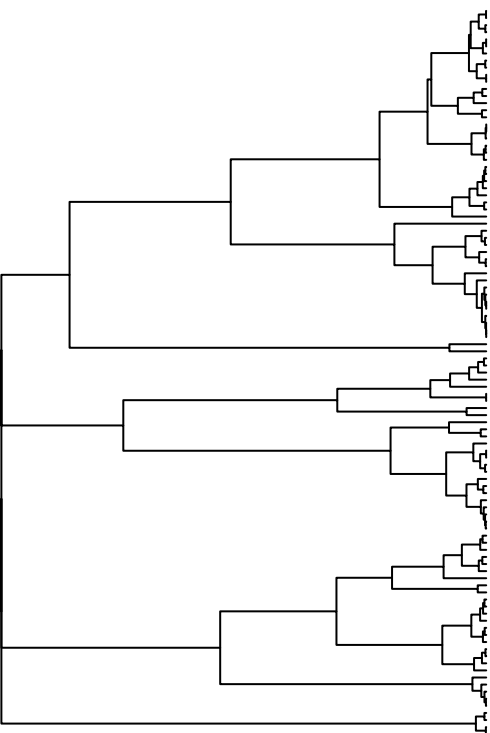
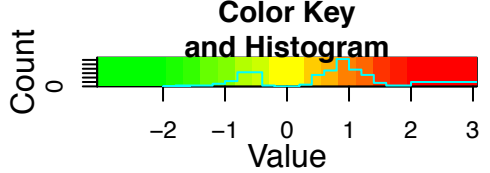
isomiR

Small text labels for individual isomiR entries, including identifiers like miR-145, miR-146, miR-147, etc.

CEU\_vs\_FIN  
CEU\_vs\_GBR  
CEU\_vs\_TSI  
CEU\_vs\_YRI

Population Comparison

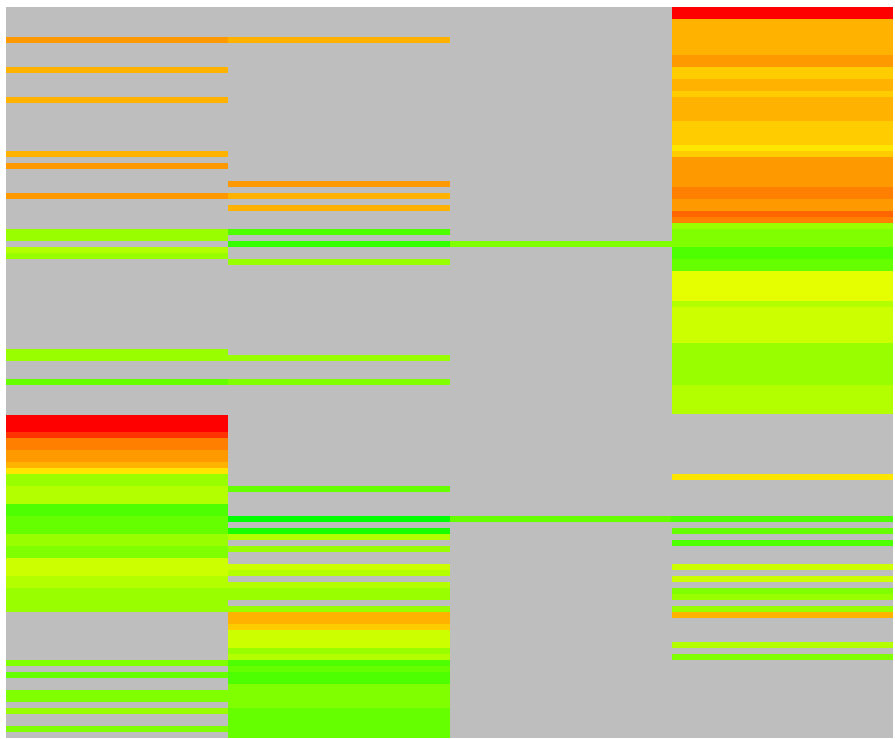
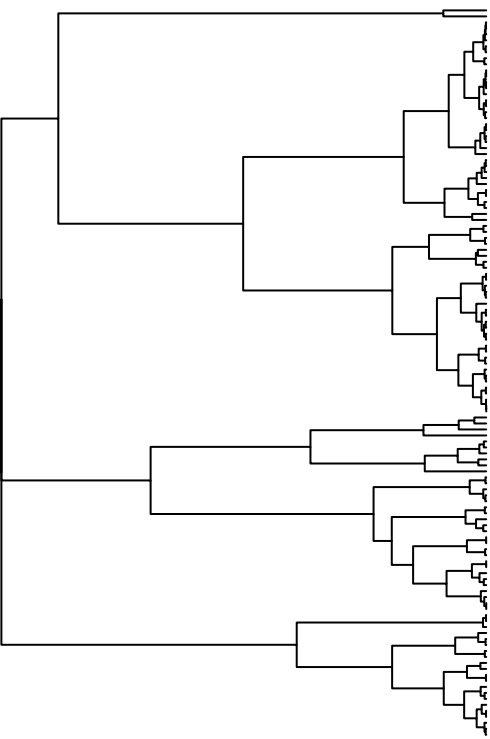
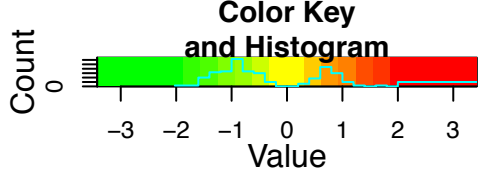
# FemalesOnly: FIN vs All



isomiR

hsa-miR-101-3p  
hsa-miR-101-5p  
hsa-miR-101-1  
hsa-miR-101-2  
hsa-miR-101-4  
hsa-miR-101-5  
hsa-miR-101-6  
hsa-miR-101-7  
hsa-miR-101-8  
hsa-miR-101-9  
hsa-miR-101-10  
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hsa-miR-101-94  
hsa-miR-101-95  
hsa-miR-101-96  
hsa-miR-101-97  
hsa-miR-101-98  
hsa-miR-101-99  
hsa-miR-101-100

# FemalesOnly: GBR vs All



isomiR

Small text labels for individual isomiRs, including names like hsa-miR-101-3, hsa-miR-101-5, hsa-miR-101-1, etc.

isomiR

GBR\_vs\_CEU

GBR\_vs\_FIN

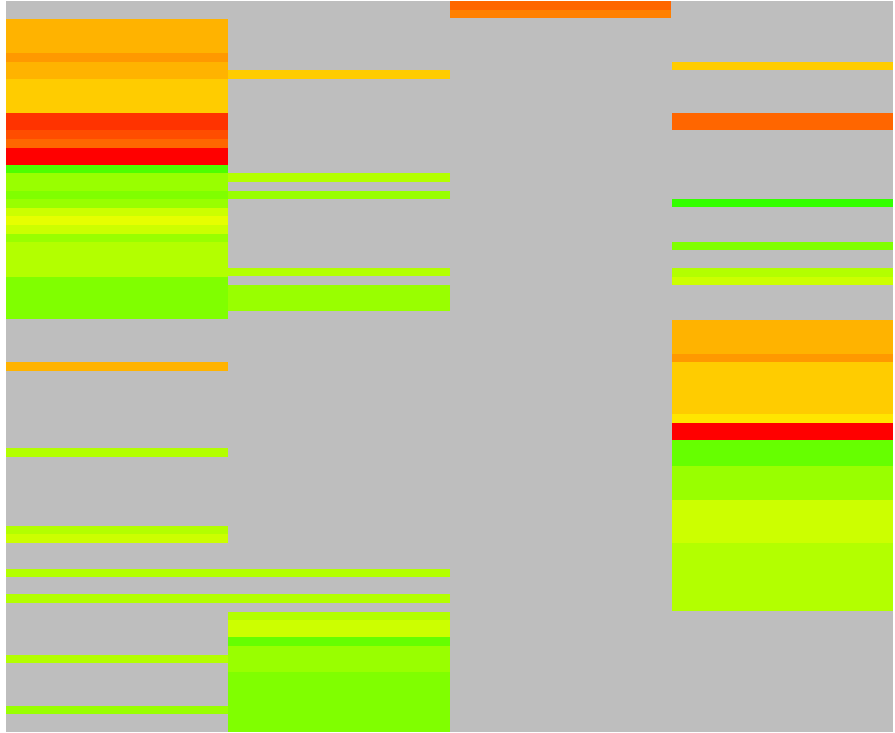
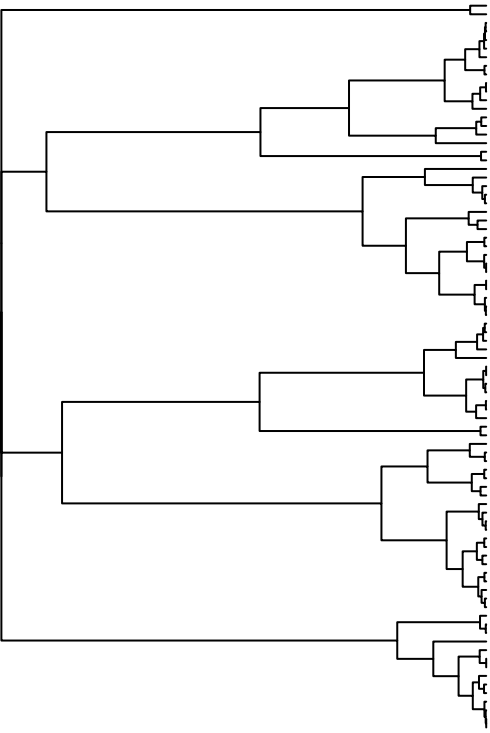
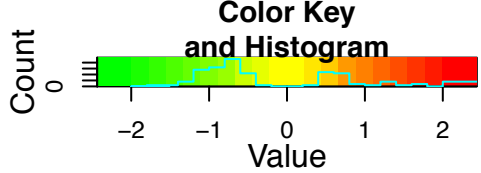
GBR\_vs\_TSI

GBR\_vs\_YRI

Population Comparison



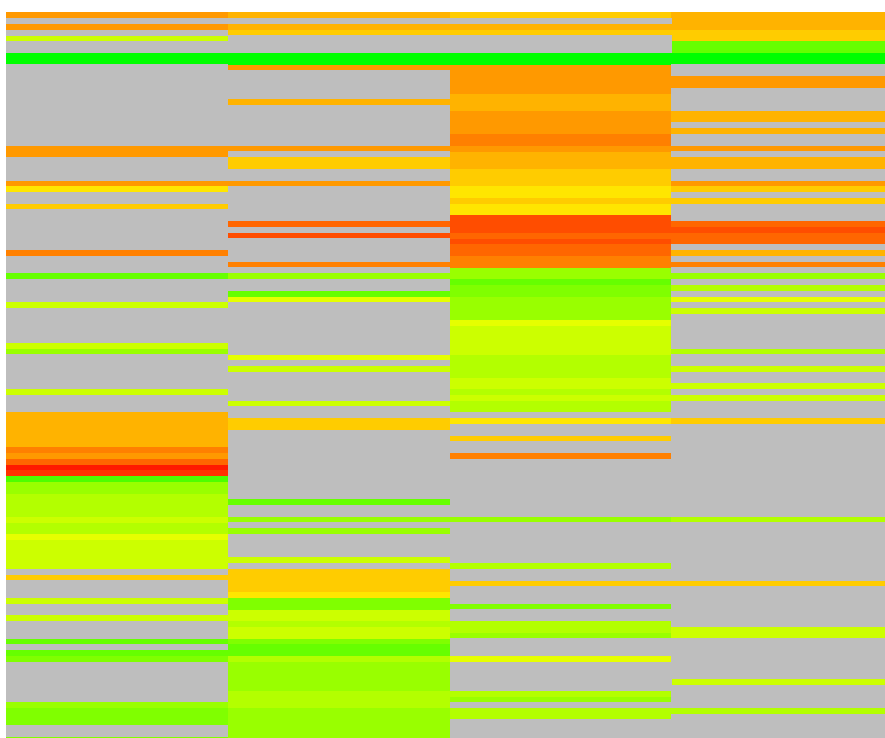
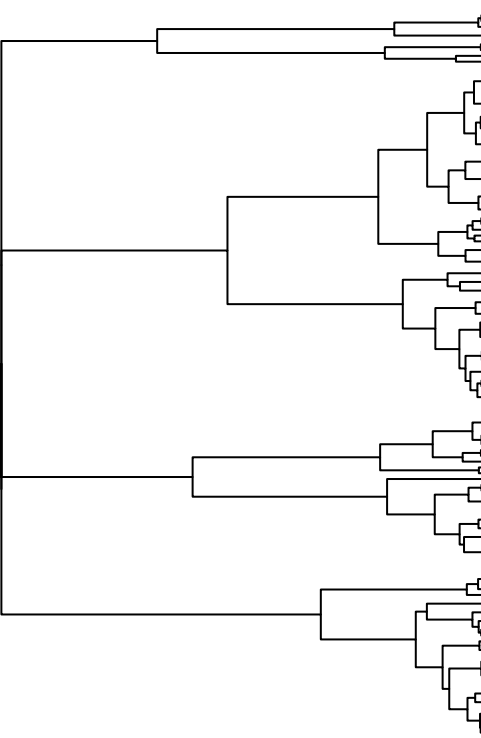
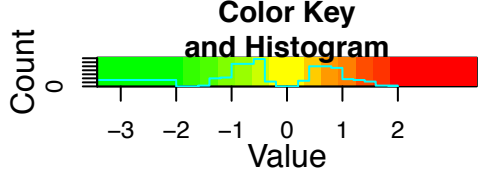
# FemalesOnly: TSI vs All



isomiR

Small text labels for individual samples, likely miRNA identifiers, listed vertically on the right side of the heatmap.

# FemalesOnly: YRI vs All



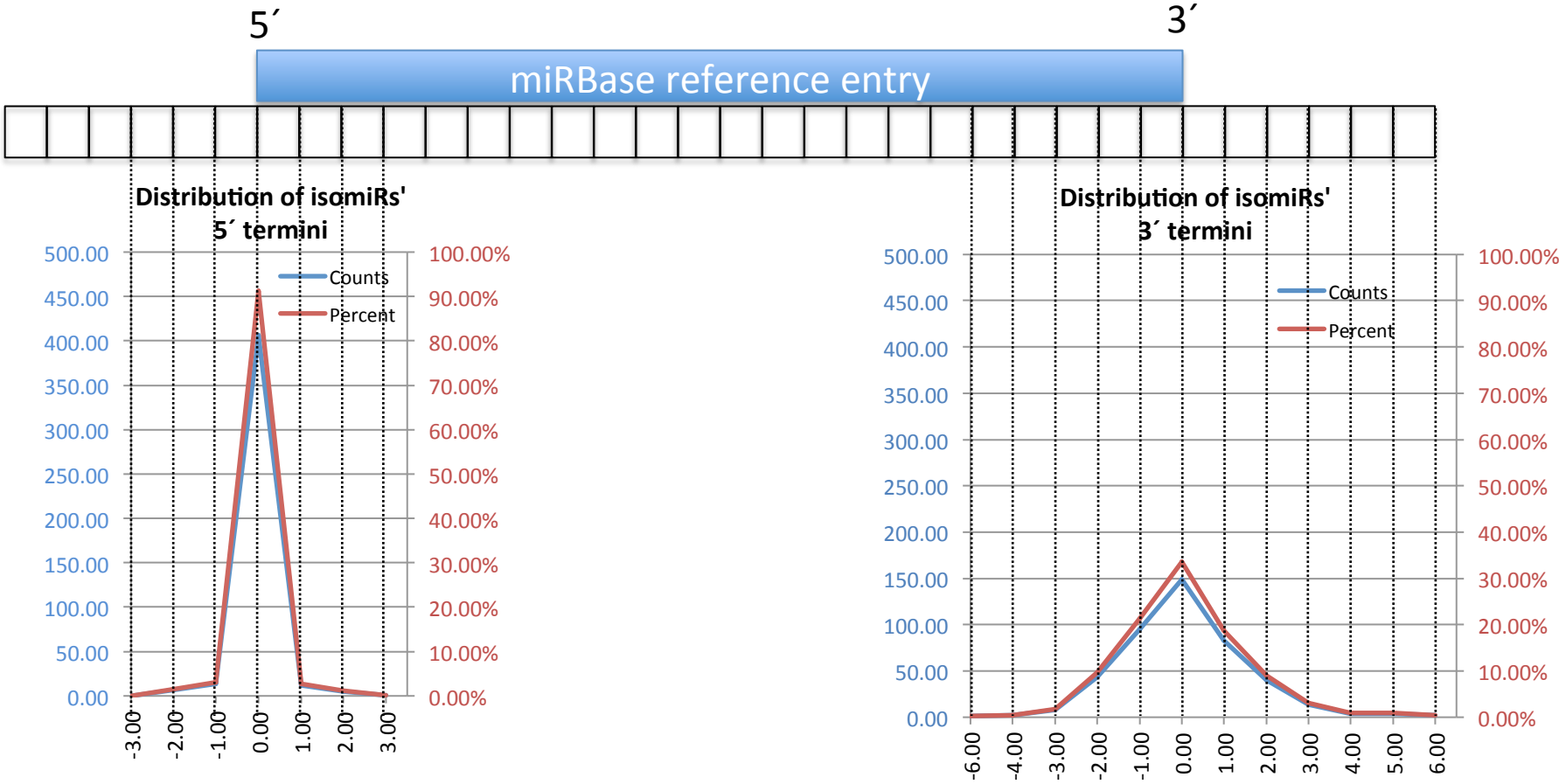
isomiR

hsa-miR-145-3-3p  
hsa-miR-145-3-2p  
hsa-miR-145-3-1p  
hsa-miR-145-3-4p  
hsa-miR-145-3-5p  
hsa-miR-145-3-6p  
hsa-miR-145-3-7p  
hsa-miR-145-3-8p  
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hsa-miR-145-3-199p  
hsa-miR-145-3-200p

YRI\_vs\_CEU  
YRI\_vs\_FIN  
YRI\_vs\_GBR  
YRI\_vs\_TSI

Population Comparison

Supp. Figure 5  
(page 210)



**Supp. Table 1. Statistics for each population separately for the single most abundant isomiR produced from a given precursor arm.** The most abundant isomiR's identity was determined by analyzing the technical replicates separately for each of the populations. At each locus, we also generated the “conservative” estimate by requiring that the most abundant isomiR have higher expression than the miRBase reference by at least 0.585 log<sub>2</sub> units.

	CEU		FIN		GBR		TSI		YRI	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
MiRNA precursor arms considered	197		190		170		192		188	
MiRBase miRNA sequence not among the 95-th percentile	63	32%	61	32%	56	33%	66	34%	57	30%
Top isomiR not in agreement with miRBase	99	50%	93	49%	92	54%	97	51%	96	51%
Top isomiR (conservative) not in agreement with miRBase	86	44%	84	44%	77	45%	87	45%	83	44%
Top isomiR disagrees with miRBase at 5' end	13	7%	13	7%	10	6%	13	7%	10	5%
Top isomiR disagrees with miRBase at 5' end <i>only</i>	3	2%	2	1%	2	1%	3	2%	2	1%
Top isomiR disagrees with miRBase at 3' end	96	49%	91	48%	90	53%	94	49%	94	50%
Top isomiR disagrees with miRBase at 3' end <i>only</i>	86	44%	80	42%	82	48%	84	44%	86	46%
Top isomiR disagrees with miRBase at <i>both ends</i>	10	5%	11	6%	8	5%	10	5%	8	4%

**Supp. Table 2. Statistics for each population separately for the single most abundant isomiR produced from a given precursor arm – using only females.** The most abundant isomiR’s identity was determined by analyzing the entire collection of all unique datasets that passed quality control and belonged to females. At each locus, we also generated the “conservative” estimate by requiring that the most abundant isomiR have higher expression than the miRBase reference by at least 0.585 log2 units.

	CEU		FIN		GBR		TSI		YRI	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
MiRNA precursor arms considered	198		189		193		182		199	
MiRBase miRNA sequence not among the 95-th percentile	57	30%	52	28%	58	31%	56	30%	59	30%
Top isomiR not in agreement with miRBase	94	47%	91	48%	95	49%	87	48%	97	49%
Top isomiR (conservative) not in agreement with miRBase	84	42%	81	43%	87	45%	79	43%	87	44%
Top isomiR disagrees with miRBase at 5' end	13	7%	12	6%	12	6%	10	5%	13	7%
Top isomiR disagrees with miRBase at 5' end <b>only</b>	2	1%	3	2%	3	2%	1	1%	2	1%
Top isomiR disagrees with miRBase at 3' end	92	46%	88	47%	92	48%	86	47%	95	48%
Top isomiR disagrees with miRBase at 3' end <b>only</b>	81	41%	79	42%	83	43%	77	42%	84	42%
Top isomiR disagrees with miRBase at <b>both ends</b>	11	6%	9	5%	9	5%	9	5%	11	6%

**Supp. Table 3. Statistics for each population separately for the single most abundant isomiR produced from a given precursor arm – using only males.** The most abundant isomiR’s identity was determined by analyzing the entire collection of all unique datasets that passed quality control and belonged to males. At each locus, we also generated the “conservative” estimate by requiring that the most abundant isomiR have higher expression than the miRBase reference by at least 0.585 log2 units.

	CEU		FIN		GBR		TSI		YRI	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
MiRNA precursor arms considered	192		183		187		189		195	
MiRBase miRNA sequence not among the 95-th percentile	63	32%	58	31%	60	31%	54	30%	62	31%
Top isomiR not in agreement with miRBase	92	48%	87	48%	91	49%	92	49%	93	48%
Top isomiR (conservative) not in agreement with miRBase	81	42%	79	43%	82	44%	83	44%	82	42%
Top isomiR disagrees with miRBase at 5' end	13	7%	11	6%	10	5%	11	6%	11	6%
Top isomiR disagrees with miRBase at 5' end <b>only</b>	2	1%	3	2%	3	2%	2	1%	3	2%
Top isomiR disagrees with miRBase at 3' end	90	47%	84	46%	88	47%	90	48%	90	46%
Top isomiR disagrees with miRBase at 3' end <b>only</b>	79	41%	76	42%	81	43%	81	43%	82	42%
Top isomiR disagrees with miRBase at <b>both ends</b>	11	6%	8	4%	7	4%	9	5%	8	4%